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# THE UTILITY OF MILITARY HISTORY<sup>1</sup>

BY ADMIRAL H. E. YARNELL

Military history is being made on a vast scale in these days and we are all much interested in the problem of ensuring that an adequate record be made of this war for the benefit of future generations. A number of those here present are engaged on that specific task in the War and Navy Departments.

Due to the activities of a naval life, I must confess that I do not possess other than a superficial knowledge of history. One reason for this which doubtless had an effect was that it is only in recent years that history has been made an interesting subject for the layman. Also our histories of my younger days were written from a nationalist point of view which resulted in a rather distorted understanding of past events.

As school boys, we were taught that all or nearly all battles were American victories, that the British massacred a number of inoffensive school boys on Boston Common, and some of us being Northerners, that the South was entirely in the wrong in our Civil War.

One of the textbooks was entitled, *Outlines of World History*. It gave a record of the ancient civilizations of Assyria, Egypt, Greece, Rome, and so on down through the centuries, but there was not a single word about India, China, or the Far East. No wonder that there has been much ignorance on the part of our people as to that part of the world. Yet one of the Allied powers today is China whose continuous recorded history as a nation extends over a period of more than 3,000 years.

It was not until I read General Upton's *Military Policy of the United States* that I realized that the Revolutionary army contained cowards, deserters, and traitors in considerable numbers, as well as brave men, that the land operations of the War of 1812 were in general a record of failure and inefficiency, and that the Union army in the Civil War suffered from graft and incompetency in command and civil positions. General Upton was stating the truth, unpleasant as it was, in his endeavor to discover and formulate a national military policy that would prevent, or ameliorate, such conditions in future wars.

In a recent book written by a Canadian, he discusses sources of friction or ill-feeling that exist between the United States and Canada.

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<sup>1</sup>Reprint of an address given by Admiral Yarnell at a meeting of the American Military Institute, at Washington, January 28, 1944.



One of these sources, he says, is the antagonism of the descendants of the Tories who fled to Canada in the Revolutionary War and whose property was confiscated and never paid for. This was illuminating as I had not been aware that there were any Tories in the Colonies. Also it was a bit disturbing to know that our leaders commandeered private property which has never been paid for to this day.

I suppose it is natural for historians to color history to fit their own national point of view, and this tendency evidently still exists.

Bertrand Russell has recently been writing on the bias that various nations have shown in the teaching of history in the schools and he shows that it operates in the history of science as well as of other events. He writes

The law which the English call Boyle's law is in France attributed to Mariotte; English writers sometimes suggest that Priestly discovered oxygen, which is an injustice to Lavoisier; German mathematicians are apt to claim Gauss as the originator of non-Euclidian geometry, whereas this honor belongs to the Russian Lobatchevsky. The invention of the steamboat is quite a different affair in English and American books. The most famous of such controversies was the dispute between Newton and Leibniz about the invention of calculus, which prevented George I from bringing Leibniz with him to England, and ruined English mathematics for more than a century. In all these cases, the facts are easily ascertained and should be set forth impartially; but as things are, national bias perpetuates traditional errors.

To be of value to military men, history must give all the facts, pleasant and unpleasant, about the campaign under discussion. Accounts which glorify victories and gloss over or omit the failures are worthless to the student who is seeking to improve his ability as a leader in war. He must be in the position of the research scientist who deals with facts; not propaganda.

Nearly 1800 years ago Lucian laid down the specifications for a historian who would fulfill military requirements. They are

The historian should be fearless and incorruptible; a man of independence, loving frankness and truth; one who, as the poet says, calls a fig a fig and a spade a spade. He should yield to neither hatred nor affection, but should be unsparing and unpitying. He should be neither shy nor deprecating, but an impartial judge, giving each side all it deserves but no more. He should know in his writings no country and no city; he should bow to no authority and acknowledge no king. He should never consider what this or that man will think, but should state the facts as they really occurred.

The value of military history to the student lies in the fact that when he is in possession of all the information regarding a certain operation, he can evaluate the good and bad points of a campaign or operation and, through the lessons learned, be more qualified as a leader to carry out actual operations in time of war.

Let us take a concrete example, the recent campaign in Africa.

To an arm-chair strategist, it would appear that much greater results would have been achieved at less cost if Bizerte had been the main

object of attack, and Casablanca and Oran by-passed. What were the reasons that led to the immobilization of a division of troops in Morocco for a considerable period of time?

The merits and demerits of such a campaign cannot be known until all the facts are known to the student in the post-war years. Was the threat of Spanish troops in Spanish Morocco really serious? Would not have Casablanca and Oran surrendered without fighting as did Dakar? Was there an inclination to play safe in the drafting of the plans and to avoid what were doubtless considered as considerable risks? These are questions which must wait for answers until the war is over and records are available.

That brings up the question as to what records will be available and will they be adequate for the purpose of arriving at all the facts in the case from which sound deductions can be made. Will they tell the truth, the whole truth, and nothing but the truth?

This point will be of especial interest to a number of those present who are in the service of the War and Navy Departments charged with the duty of collecting and filing the material for a future record of this war. Of what should this material consist?

We have of course the official reports made by the commanders in charge of operations. They are doubtless accurate, as far as they go. Official reports suffer however from the fact that they are made by the one who conducted the operation, and he is not apt to be over-critical of his own work.

Official reports are the bones of history and as such are seriously lacking in the necessary material from which accurate future estimates can be made which will be of value to the military student.

These dry bones of official reports must be clothed with flesh and blood to make them worthwhile. This flesh and blood consists of a knowledge of the personalities of the leaders, their private reactions to the shifting scene of war as embodied in private letters and diaries, the morale and training of the men, and all the imponderables that enter into the friction of war.

Perhaps the greatest factor of all is that of personality. The conduct of a fleet or an army in war is one of the most difficult tasks that can be imagined, and the human element plays a vital part in operations. Leaders are human beings and are subject to all the peculiarities of human nature. They may be able, incompetent, rash, prudent, ruthless, kindly, physically strong or ailing. All of these characteristics influence greatly their decisions and their actions.

Of examples of the above, there are many in history. It took the iron discipline of ruthless old John Jervis to stamp out mutiny in the

British fleet and prepare it for Nelson whose kindness made of his captains a "band of brothers."

The first World War might have been shortened many months had there been at the Dardanelles a Farragut who would have pushed up the Straits past the Turkish forts, placed Constantinople under his guns, and opened the road to Russia.

In his book, *Lee's Lieutenants*, Dr. Douglas Freeman comments on them as follows

On cold reappraisal, after seventy-five years, some generals have diminished in stature. The failure of two or three of them is found to have been due to definite and discoverable peculiarities of mind. There is, for example, no mystery about the unwillingness of the Confederate President to give Beauregard or D. H. Hill a post commensurate with their rank. Beauregard never could be rid of his Napoleonic complex or be induced to shape his strategical plans in terms of available force and practicable logistics. Hill, a fine combat officer, would not accept the responsibilities of departmental command. Other men, in unpleasant number, were boastful and were willing to warp the historical verities in order to glorify themselves or to extenuate error. Some of Lee's Lieutenants were jealous and some were stupid; some were self-seeking and many were vaingloriously ambitious. In two or three cases, the evidence is all too explicit that men of honored name were physical cowards. Several military blunders and no little of chronic inefficiency had their source in the bottle.

Private letters have in the past been an invaluable mine of source materials. In such letters to their wives and families, officers in the field open up their hearts and minds, and disclose phases of war that never appear in official records.

In his monumental work on Lee and in his subsequent volume on *Lee's Lieutenants*, Dr. Freeman relied to a very great extent for his information on private letters and diaries.

In this connection he states in his foreword to the latter work

May three matters be added that relate directly to the preparation of this book? First is the plenitude of source material concerning some officers and the paucity of the records of other. None of the corps commanders of the Army of Northern Virginia, except Jackson, left any large number of contemporary personal letters. This is a lamentable, an irreparable gap. What would not one give for the letters Longstreet presumably wrote his wife after Gettysburg, and those A. P. Hill penned during the heat of his quarrel with Jackson?

Of all the manuscripts graciously made available to the writer, much the richest are the papers and maps of Maj. Jed. Hotchkiss. On them primarily is based the new treatment of the Valley Campaign of 1862.

Those war letters and diaries of the eighteen-sixties, so informative when available, so deplored when lost. . . .

Perhaps one of the most informative books on the Civil War is the diary of Gideon Welles. This grim, indefatigable man, after long and tiring hours in his office would laboriously record that night his daily doings, his contests with other departments, and his estimates of the officers with whom he was working. He was cold and unsparing in his judgments, but eminently fair. This diary throws light on many



phases of the naval war of 1861-65 that could never have been obtained from official records.

It is to be hoped that those high in authority in this war are keeping personal diaries of daily events. Many great decisions are often made orally or in conference and no records are kept. Diaries would help to cover this gap in the record of the war. The reasons why certain decisions are made are often of more value to the student of military history than the actual operations themselves. With all the modern developments of sound recording, it would be a simple matter to have records for posterity of all the conferences of the leaders at which major decisions are made.

In a recent editorial, the editor of the San Francisco *Argonaut* stated

The end of the war will bring a transformation in the handling of many official matters—and also, peculiarly enough, in the writing of the future histories. In the past historians have quarreled over who did what in certain battles, and seldom have been in agreement. But this time we will have films and sound tracks to show just what did happen, how it happened and what was or was not accomplished by the Allies or by the enemy, and it is to be hoped that in such historic conferences as the one between Messrs. Roosevelt, Churchill and Stalin a complete sound and pictorial record has been made of everything said . . . a record that will leave no dispute to the generations of the future.

It is of course obvious that the documents relating to the war should be sifted out and pertinent papers recorded and filed in the archives. This is a huge task and I can imagine the difficulty of separating the wheat from the chaff.

An interesting instance of a great historical document being lost is cited by General John M. Palmer, USA, in his book, *America in Arms*. This was a treatise by General Washington on the military policy of the United States under the title, "Sentiments on a Peace Establishment."

Regarding this document, General Palmer wrote

This highly constructive State paper lay buried in manuscript form for 147 years and was not given to the public until I found it among the Washington Papers in the Library of Congress and published it in 1930 as an appendix to my "Washington, Lincoln, Wilson: Three War Statesmen." Since then it has been published in Vol. 26 of the Bi-Centennial Edition of the Writings of Washington (Government Printing Office, 1938). If Jared Sparks had included the Sentiments on a Peace Establishment in his Writings of Washington, we might have had a sound military system long before the Spanish-American War.

Modern war requires the utmost care that valuable information does not fall in the hands of the enemy. This leads to restrictions on several sources of information of future historical importance such as private diaries and letters.

Naturally, military security must come first. But it is hoped that those in high command will appreciate the future value of such docu-

ments and make reasonable allowance for their existence.

From the military point of view, the most valuable documents will be the staff histories in which campaigns and actions are critically analyzed, and from which the student can learn what he should do, and also what he should not do in time of war.

In his book, *The Writing of Naval History*, L. G. Carr Laughton has this to say

What the naval officer wants is certainty. From the information available he has to evolve a body of doctrine by which, in due course, his actions will be guided. On the truth of that doctrine will depend life, professional reputation, and the safety of the State. Rightly, therefore, he is not easily convinced. For very long he scorned history, for his experience of it was that, by selection of facts designed to support a preconceived opinion, it could be quoted in favour of any theory, and could be answered by a similar selection of facts. As Sir Julian Corbett has phrased it, he understands now that history is not a dust-heap from which a convenient brick may be extracted to hurl at an opponent. Men go to it as a mine of experience where alone the gold of right doctrine is to be found. Formerly men went to it to prove that they were right; now they go to find out where they are wrong.

There will also be written histories for the general reader. It is to be hoped, in fact it is essential, that such histories clarify and emphasize the intimate relations between national policies and the force necessary to maintain them.

How else can we explain the extension of national commitments far beyond the power to enforce them, the one time prevalent belief that armaments are the cause of war, the growth and influence of pacifism in reducing our armed forces to a dangerous degree.

In a recent book on the Disarmament Conference of 1922 written with especial reference to the reactions of the press and the public, prior to and during the session of the conference, there was never the slightest reference to the relation of policy and armed force. This elementary principle seemed to be unknown even by the eminent statesmen who conducted the negotiations. Instead it seemed to be the naïve belief of all that if armament could be reduced the probability of war would disappear.

Had there been an understanding of such a principle on the part of those in authority during the past two decades coupled with the courage to take the necessary steps to implement that basic principle, the world would have been spared the sacrifice of untold blood and treasure.

Upon the historian rests the responsibility of placing in the hands of our people the information, and the analysis of that information, which will enable our statesmen to guide the nation along safer paths than has been done in the past.

# CHANGES IN BRITISH STRATEGY

BY GENERAL SIR GUY C. WILLIAMS

It is the policy which a nation pursues that determines its strategy, and the instruments of that strategy are its armed forces. A long-term and stable policy will enable the armed forces to be fully equipped and prepared to implement it; frequent changes in policy will leave a nation unprepared when the moment comes for action.

In the years immediately following the Great War, Britain was preoccupied with economic reconstruction and had nothing to fear from military aggression by sea, land, or air. France possessed all the requisite military power to keep order in Europe for the time being, and for the future, the hope lay in acceptance of control by an impartial League of Nations.

Money was wanted for social reforms and must not be tied up in unproductive armaments, and so the armed forces of Great Britain could be reduced to care and maintenance basis. In 1923 the comforting formula was devised that there could be no major war for ten years. As long as that could be said the Government felt justified in reducing its military expenditure to a minimum.

That then was the policy in the years following World War I. The naval strategy remained the same as it had always been, namely control of vital sea communications; but there was no German navy as there had been in 1914, and so the two-power standard was reduced to one-power in relation to the USA and, though the Anglo-Japanese Alliance was not renewed, to a one and a half power standard in relation to Japan. The consequent reduction in strength meant that the main fleet became too small to be divided, and the situation in Europe would need to be very safe before the fleet could be sent east of the Suez Canal. The need for an adequate naval base in the Far East was however appreciated and work on Singapore continued over a term of years.

The army reverted to the old Cardwell system, which meant that the British Army at home consisted of reinforcements for India and for the garrisons of the overseas bases and of the colonies, and its strength was strictly limited to those requirements. Such limitations provided a regular army at peace strength at home of five divisions, consisting mainly of young soldiers. The Territorial Army reverted to its prewar condition of enthusiastic amateurs doing 50 drills and a short summer camp each year.

In these circumstances the British Army at home was a token army

in many respects, and its weapons remained those of 1918. Modern inventions could only be provided in sufficient numbers for experimental purposes and guns, tanks, and even bodies of troops had to be represented largely by flags. It was only in India that the trained and equipped soldier could be seen; there the tribesman and the bullet left no mistakes uncorrected.

The Air Force as the youngest service had a measure of freedom. Its role was the defense of the home country against air attack, and its strength was laid down to be equal to that of any power which could attack Great Britain by air. In addition to home defense it was also allowed to try its wings in control of territory in the Middle East.

The policy of the Government was Disarmament, with a capital D, in which the United Kingdom must show the lead. And so the fighting services went their several ways, tied down to separate defensive strategies and struggling for a bare existence.

By 1933 the danger was becoming apparent. Between 1933 and 1938 Germany was spending 800 million pounds a year on war preparation, and no measures were taken to prevent her from rearming. The ten-year rule was no longer quoted, but Britain failed to rearm herself in time. France relied on a system of alliances, but did not support them with armaments.

And so those fateful years between 1933 and 1938 passed by, when it can be said that there was no policy on which to determine British strategy or to forge the weapons to implement it.

The signs were not however wholly disregarded; military preparations for home defense did take account of the possibility of German air attack on England, and priority was given to the manufacture of fighters and of AA guns. Politically Great Britain relied on a defensive alliance with France and was urging other nations to join this alliance by guaranteeing to help those smaller nations who were prepared to help themselves, in the hope thereby of deterring the aggressor and preventing a war. As events proved however that plan, when put to the test in 1938, failed.

With the German threat to Czechoslovakia in May 1938 the British Government thought for the first time in terms of an Expeditionary Force; yet two divisions were all that could be mobilized if need be. However, though the members were small, the change of policy was significant, and a defensive strategy was giving way to an offensive policy.

And then came Munich, and the announcement by Mr. Chamberlain on his return that he had brought "peace in our time." The lack of preparation to meet the crisis had however shaken the Government.



It hurried to make amends, and the Prime Minister declared that England could not remain the only unarmed nation in Europe and that the rearmament program must be pushed forward with all speed. Germany was not slow to use this change of policy as propaganda of British intentions to provoke a conflict, to which Sir Neville Henderson replied that peace could only be assured when Great Britain was in a position to defend herself.

In April 1939 conscription was introduced, a decision taken before a shot had been fired, whereas in World War I it had not been adopted until after two years of hard fighting.

Great Britain had at last resolved to take a leading part in forming and sustaining a league of armed and arming peoples to resist by force if necessary further acts of Nazi aggression. Guarantees were given to Poland, Rumania, and Greece, offers of help to Holland and Denmark, and a pledge to France. Here at long last a change and something on which to plan and to build.

It was a quick change indeed; there were no factories ready to turn over to munitions, no Ministry of Supply to insure provision of war materials in time, no reserves of trained men. All these things had to start at the same time, and the strategy of 1939 had to use what means it possessed to meet the first danger.

Poland was invaded, and on September 3, 1939, Great Britain and France declared war on Germany.

The British Navy in the autumn of 1939 was stronger relatively to the navies of Europe than in 1914. It was the reduction in the actual numbers of ships compared with 1914 that made its world wide task of guarding vital sea communications so hard. But its strategy remained unchanged, and in the first month of the War the German U-boats were being sunk as quickly as they could be put into commission, and the increases in British hunting craft were able to keep pace with the menace.

Military strategy was based on the successful defense of France, thereby insuring that the channel ports could never fall into enemy hands, and on ultimate offensive operations in conjunction with the French for the destruction of the German armed forces as soon as England was fully mobilized for total war. In the meantime four divisions were dispatched to France with the promise of more to follow.

By the autumn of 1939 it was found that the air force had not attained the strength hoped for and was greatly inferior in numbers to the Luftwaffe. In consequence Britain was forced to adopt a defensive air strategy, and to concentrate on the production of fighters, while the bomber strength had to take second place in order of urgency.

Except for the Fleet Air Arm to serve the immediate needs of the Navy, and Army Cooperation Squadrons for reconnaissance and artillery spotting, the RAF could spare nothing to assist the other services.

So far the fighting services still had their separate strategies and their separate urgent problems.

In the first months of 1940 the war fell solely on the navy and right well did it carry out its task. The new magnetic mine was successfully countered, and it was 500 to 1 against a ship in convoy being sunk. The First Lord declared that after five months of war the first U-boat campaign had been broken.

The spring of 1940 found the British Expeditionary Force of 15 infantry divisions in France; they took with them well nigh all the modern weapons then available in the country. The immense plants and factories needed to equip the growing air forces and armies were only coming gradually into production. Germany invaded Norway, and was met by successful British naval action, but attempts by small military forces sent hurriedly to assist the Norwegians against the invader were short lived; the numbers available amounted only to 3 brigade groups and were without air support.

The storm then broke on the Western Front. The fighting that followed demonstrated the value of a combined ground and air strategy in the power of attack of the German Panzer formations with the close support of aircraft. In addition, German airborne troops were effectively used for the first time. The Allies did not possess the means to counter this new form of combined ground and air strategy, which proved the undoing of the French and Belgian armies and left the British Expeditionary Force unsupported. As for the BEF, everything that was ready to fight with was sent to France, including the one and only British armored division, in a desperate attempt to rally the French.

And then Dunkirk with its miracle of the rescue of 335,000 British and French soldieries, but with the total loss of everything else. Italy now declared herself on the side of Germany. Great Britain was suddenly alone but undismayed. "We shall defend our island," said the Prime Minister. "We shall fight on the beaches, we shall fight on the landing grounds, we shall fight in the fields and in the streets; we shall fight in the hills."

A new and grim set of circumstances, which demanded an immediate readjustment of strategy confronted the fighting services. The problem was the defense of the home land against the immediate threat of invasion and the preservation of communication with the Dominions and possessions overseas, whence help would come.

For that task the naval strategy remained unchanged, except in one respect. No longer could big ships keep close guard over the narrow waters of the English Channel in the face of enemy air supremacy. The Mediterranean also was partially closed to traffic, with the added burden of the long sea voyage round the Cape, absorbing three times more shipping than would have been needed through the Suez Canal. The battle of the Atlantic too was entering its second stage with an intensified U-boat campaign bent on isolating Britain as the threat of invasion approached. Fifty American destroyers were transferred to the British Navy; this was indeed a friendly and a timely act.

The Army's task was home defense with more responsibility than ever before to guard the beaches of the south and east coasts. The men were all there, enthusiasm abounded. It was training and equipment that they lacked, a new army had to be created and every hour counted. Here again the United States came to the rescue with field guns and rifles.

The Battle of Britain now began with the German bid for air supremacy. During the battles of France, despite the most urgent calls for help, a proportion of the fighter strength of the Metropolitan Air Force had been kept back. It had been a hard decision at the time, but proved indeed a wise one. And thanks to these RAF fighters and thanks now to their victories against very heavy odds, the German bid failed and the autumn of 1940 passed without the expected German invasion.

With the entry of Italy into the war yet another military commitment had to be met. Egypt was the vital link between the United Kingdom and the East, and was threatened by a large Italian concentration of forces in Libya. Egypt had to be given the bare necessities in army and air forces; but they proved enough under the able leadership of Wavell, who with a field force of one armored and two infantry divisions seized the initiative. By his brilliant drive to Benghazi, he removed the threat to Egypt, destroying some 10 Italian divisions and capturing 250,000 prisoners.

The year 1941 opened with renewed hope. Every month found the country more fully ready and better prepared to meet the expected invasion. In the air the Germans had abandoned the expensive daylight sweeps intended to destroy the British fighter strength and had substituted heavy night raiding intended to wear down the morale of the country and soften the will to resist invasion. But the country showed that it could take it, all through the winter of 1940, until the bombing died down in May 1941.

The arrival of Canadian troops in England, of Australian, New Zealand, South African, and Indian troops in North Africa, added continued strength to the growing armies at home and in Egypt. But the growth seemed hardly able to keep pace with the demand; existing garrisons needed strengthening in Singapore and Hong Kong, and in the naval bases of the West Coast of Africa. Iceland had to be occupied, Palestine and Iraq reinforced, the campaigns in Abyssinia and Somaliland called for men. The army in Egypt was to have no breathing space, a corps of 60,000 strong, including tanks, was sent to the aid of Greece, but could only carry out a delaying action. Again with their great air superiority in close support of army troops, the Germans were able to occupy Greece, and to follow the British withdrawal by an airborne attack on Crete, which fell after a bitter struggle.

The lessons of combined air and ground strategy practiced by the Nazi forces were being learned from bitter experience, but the means of turning them to account had not yet arrived.

Germany now made her greatest mistake. She attacked Russia in the hope of removing a threat in the East before turning her full attention to the West. At the same time she intensified her U-boat campaign and she went to the aid of Italy in Africa, both with armored formations and aircraft. The great change in the fortunes of war by the advent of Russia was felt immediately in England; it gave time for further preparation; it enabled reinforcements of planes and armor to be sent to the Middle East which was hard pressed. And American help in armaments too was relieving an acute need.

But the allotment of war materials was a delicate matter, active fronts had to have priority. From the middle of 1941 Russia's need was the greatest; the Middle East too must get enough armor and air support to hold out through 1941. British strategy had not assumed the offensive stage, but tension was relaxing. Singapore had to wait; she did in fact receive reinforcing divisions from India and from Australia, but her needs in army troops and especially in aircraft were far from met when Japan struck.

Japan chose her time well; her initial successes were surprising and far-reaching. The loss of Singapore was the heaviest strategic blow suffered in the war by Great Britain. Japan's successes meant more British troops for Burma, the withdrawal of Australian forces from the Middle East, the strengthening of garrisons in Ceylon, the occupation of Madagascar.

But the United States had now entered the war as an active partner. Her preparations would take time, but an allied offensive strategy could at least be planned and the foundations for it laid—Japan must



be held and Russia must be aided whilst the Allies prepared for the opening of a second front in Europe. That was the long term plan for which preparations began early in 1942. But much hard fighting was ahead before it could be put into effect.

The Axis Powers also had to adjust their strategy to the new conditions—Russia was fighting on, the German fear of having to fight on two fronts must be removed. And so the Axis plan was to defeat Russia, capture Egypt and delay the British and American preparations by the maximum interference with their line of supply to England—the future bridgehead for the second front.

In the fierce battles against Russia, Germany failed to remove the threat from the East. Rommel made his all-out attempt in June 1942 to seize Egypt and he too failed. The U-boat war was grimly fought through 1941 to 1942.

But the Allied supply situation was ever improving. Reinforcements on a grand scale were reaching Egypt. One great contribution were the Sherman tanks, which proved themselves the best of all tanks, that President Roosevelt took from the American Army in training and sent to the Middle East.

After years of want the British 8th Army was given enough in men, in armor, in guns, and in aircraft. The hard-learned lessons of the need for close cooperation between air and ground troops and the use of aircraft to prepare the way for assault could now be put into effect. In October 1942, the time had arrived to drive the Axis out of Africa, and so open the Mediterranean and shorten the way to the East. And without pause the enemy was driven remorselessly for 1,500 miles out of Tripoli and into Tunisia.

The long term planning and preparation for a combined strategy was also to have its reward. Anglo-American landings, secretly planned and beautifully timed, were made in Algeria and Morocco. The fight for Tunisia which followed was a perfect example of modern naval, army and air cooperation, both strategical and tactical.

All this time other battles were in progress; the Japanese being held and the initiative slowly wrested from them. The Battle of the Atlantic had steadily increased in intensity with more U-boats and more craft to hunt them. There had been changes in tactics from attacks by single U-boats to onslaughts of packs of boats in mid-ocean, and the sinkings became very heavy in 1942. But the Allied surface craft had now been reinforced with aircraft operating from special carriers; and 1943 saw the Battle of the Atlantic turn in favor of the Allies by another example of the combined strategy of the fighting services.

And another battle is in steady progress, the consistent Allied bombing by day and by night of Germany's war production and the destruction of her rolling stock are having an immediate effect in relieving pressure on Russia and a cumulative effect on operations to follow in Europe.

In the meantime, after due air preparation, the British, American and Canadian invasion of Sicily in 3,000 ships demonstrated the meaning of combined operations on the grand scale. The landing craft have been built; combined operations practiced; airborne troops trained; aircraft used to provide air cover, to bomb targets ahead, and to give close air support.

All these things are now realities at last, and demonstrate the meaning of the cooperation of all three services in modern combined operations. And such operations, which were carried out on a grand scale in Sicily and Italy, can and will be carried out by the Allies on the grandest scale as the final stage for the war in Europe is set.

# "LET HISTORY ARM THE MIND"

BY MAJOR JESSE S. DOUGLAS

On the seal of the American Military Institute appears an appropriate motto about which there is, of course, a story. The motto as it is given above was conceived, after some cogitation and much discussion, by Dr. Dallas D. Irvine, our Provost; Captain (now Major) Frederick P. Todd, who was then Secretary and is now historical officer in an overseas theater; and myself. We started with an idea concerning the utility of military history, and word by word we laboriously shaped a phrase to express our thought. As we contemplated the result, we saw that it was good. Not only did it convey the intended message; it even had a slight, but we hoped recognizable, military flavor. Best of all, it went rather well with the seal's principal device, in which we fondly envisaged the eagle as looking back at history and thereby providing strength for the field-piece that guarded our country's future. It has since been discovered that both the eagle and the cannon face the wrong way, but that is another matter.<sup>2</sup>

When the seal was proposed to the Board of Trustees, Brigadier General Oliver L. Spaulding, classical scholar that he is, remarked that any motto which had so obviously been cribbed from the Latin should be restored to its native form. He translated it on the spot, and HISTORIA MENTEM ARMET it has been ever since.<sup>3</sup> So innocent was the younger generation of the Latin counterpart of the phrase which we had coined that it was several weeks before we became fully convinced that General Spaulding's version contained quite the same nuance as the English original. Needless to say, it did. This incident might be used as an example of the common failure of official records to indicate the reasons behind important events, but such was not my purpose. Rather, it is intended to introduce a discussion of the organization's establishment nearly eleven years ago and something of its existence during the intervening decade so that we may consider with greater understanding its part in the military history program today and its potential for the future.

1933-1935<sup>4</sup>

In the spring of 1933 there appeared in the *Infantry Journal* and

<sup>1</sup>A paper read at a meeting of the American Military Institute held in Washington, D. C., on February 25, 1944.

<sup>2</sup>Those initiated into the mysteries of heraldry may have noticed that the description of the seal given in article IV of the by-laws reverses this device to make it "honorable."

<sup>3</sup>The seal was adopted by the Board of Trustees at a meeting held October 28, 1939.

<sup>4</sup>For the earlier history of the organization I have used freely an unpublished "report" presented by Dr. Irvine, March 24, 1939, on "An American Military Institute," and much background information was furnished by Robert S. Thomas, Assistant Secretary of the Historical Section, Army War College.



several other service magazines an article by Major (now Colonel) Clarence C. Benson on "American Military History."<sup>5</sup> After pointing out the importance to the national defense of the objective study of "the strength and weaknesses revealed by our past military experience," the author described the difficulties of assembling and preserving unofficial but nonetheless essential evidence and the impossibility of the Army's writing and publishing the "military history that the American people should have." As a solution to the problem, he proposed the establishment of a permanent, non-governmental, non-commercial organization to be incorporated as the American Military History Foundation. He outlined for it the following program:

1. To make detailed, comprehensive and coordinated plans for work on all phases of our whole military history.

2. To affiliate with organizations that are willing to cooperate.

3. To consolidate data on the location and contents of deposits of source materials pertaining to our military history that now exist in governmental archives, libraries, museums and historical societies, both in this country and abroad; and to facilitate the use of these materials.

4. To assemble, collate, index, and preserve all the pertinent non-federal historical evidence that can be found.

5. To establish a National Military Museum in Washington, D. C., which would serve as headquarters for the organization, provide proper housing for its archives and educational exhibits, and facilitate the research work of students and historians.

6. To arrange for the collaboration of military men and civilians in the writing of a complete series of first class military histories.

7. To subsidize the publication and distribution of these histories.

8. To develop in the American people a broad knowledge of the facts of our military history, and an appreciation of their true significance.

Major Benson, at that time Secretary of the Historical Section, Army War College, spoke for a group of active and retired Army officers drawn together under the moral and intellectual leadership of the extraordinarily able Lieutenant Colonel (later Colonel) Charles E. T. Lull.<sup>6</sup> Colonel Lull had reported for duty with the Historical Section in 1929 just before the War Department ordered it to abandon all further preparation of monographs and prescribed as its principal function the collection and study of records of the War Department and other official agencies relating to participation of the military forces of the United States in the World War.<sup>7</sup> Such narratives as it did prepare, Major Benson pointed out, were to "contain no comment, estimate, comparisons or conclusions." Out of this situation developed the plan

<sup>5</sup>*Infantry Journal*, XL (March-April 1933), 124-28.

<sup>6</sup>See Alfred Hasbrouck, "Colonel Charles Edward Terry Lull: Father of the Foundation," *Journal of the American Military History Foundation*, I (Winter 1937-38), 174-77.

<sup>7</sup>See Joseph Mills Hanson, "The Historical Section, Army War College," *ibid.*, I (Summer 1937), 70-74.

to edit and publish the official documents as a series comparable to the *Compilation of the Official Records of the Union and Confederate Armies*. Realizing both the importance and the limitations of this program, Colonel Lull, who became Chief of the Historical Section in 1932, drove ahead with the War Department project but began to consider possibilities for supplementing it. He found inspiration in the Naval Historical Foundation, which was already proving its worth although it had been organized only in 1926, and he consulted with a number of distinguished military and civilian historians. Hearty encouragement was received from people with such diverse interests as Brigadier General (later Major General) George S. Simonds, then Commandant of the Army War College and later Deputy Chief of Staff; Colonel Arthur L. Conger, a retired officer who had been actively interested in military history since before the World War and a close friend of the father of modern military history, Professor (Major) Robert M. Johnston of Harvard and the AEF;<sup>8</sup> Captain Dudley W. Knox, then as now in charge of the Office of Naval Records and Library and the motivating force in the Naval Historical Foundation; and Dr. (Major) James Brown Scott, for many years the Secretary of the Carnegie Endowment for International Peace.

After considering the matter carefully and drawing up definite plans, Major Benson's article was published, shortly before the end of Colonel Lull's tour of duty with the Historical Section, to determine the extent of interest in the purposes of the proposed organization and to elicit active support. A sufficient response having been obtained, the American Military History Foundation was incorporated in the District of Columbia on June 2, 1933, by General Simonds; Colonel Conger; Colonel John R. M. Taylor, a retired officer who had earlier experienced the limitations of official sanction in connection with historical work on the Philippine Insurrection; Major Benson; Colonel Lull; Dr. Thomas P. Martin, then as now Assistant Chief of the Manuscript Division, Library of Congress; Dr. Scott; Lieutenant Colonel George P. Ahern, who had been the Executive Officer of the Army War College during the World War and, although by then retired, was always a friend to the Historical Section; Captain Knox; and Allen R. Boyd, then Executive Assistant to the Librarian of Congress. The objects of the Foundation as stated in the certificate of incorporation were:

... the establishment of the facts and the preservation of the evidence and traditions of American Military History; in particular, to collect, acquire or locate manuscripts, documents, publications, pictures, relics, and all other things and information pertain-

<sup>8</sup>See Arthur L. Conger, "Robert Matteson Johnston, 1867-1920," *ibid.*, I (Summer 1937), 45-46.

ing to the military history, colonial and federal, of the United States, to effect the preservation of these objects and information either in its own possession or by gift or bequest to or deposit with the Archives of the United States, the War Department, historical societies, libraries or other appropriate depositories; and to diffuse knowledge of and to undertake and stimulate research in American Military History and traditions by publication, displays, and otherwise.

The first meeting of the Foundation was held a week later in the office of General Simonds, who presided. By-laws were adopted, and trustees and officers were elected. In recognition of his notable services in advancing the scientific study of military history in this country, Colonel Conger was elected President. A conscious effort was made to maintain a balance between active and retired Army officers and to enlist the support of the Navy and civilian agencies. Captain Knox and two civilians, Dr. Scott and Mr. Boyd, were elected Trustees to serve with Colonel Conger, Colonel Taylor, Colonel Lull, and Major (now Colonel) Russell B. Patterson of the Historical Section. Mr. Boyd was elected Vice-President, a position he held for over six years, but the brunt of the work was to be carried by active Army officers. Major Patterson was elected Secretary, and Lieutenant Colonel (later Colonel) Charles H. Patterson became Treasurer.

One can but speculate as to what this group might have accomplished if Colonel Lull had not left the Historical Section the same month to take up new duties at the Headquarters of the Third Corps Area in Baltimore. As it was, both the Secretary and the Treasurer soon found it necessary to tender their resignations, and at a meeting of the Board of Trustees held September 21, 1933, Colonel Lull agreed to become Secretary-Treasurer in order to save the organization he had called into being from coming to an untimely end. Major Patterson thereupon agreed to continue in office as Assistant Secretary-Treasurer to lend such aid as he could. With characteristic resolution, Colonel Lull then indicated what he meant to accomplish by securing the approval of the Board for four projects he had had in mind from the beginning, the compilation of directories of original sources, of secondary sources, and of living authorities and the preparation of a geography of military history.

Although seriously handicapped by being stationed in Baltimore, Colonel Lull labored prodigiously during the following year. Compilation of the Directory of Original Sources was actually started early in 1934, plans were developed for the Foundation's first publication, and interest and membership began to grow. There was reason to think that it might become a foundation in fact as well as in name when Colonel Lull died unexpectedly on November 12, 1934. Yet even in



death he revealed his great faith in the organization by expressing the wish that his valuable library be given to the Foundation. In accordance with the desire of his widow and all who shared his vision, it has been designated as the Lull Memorial Library.

Colonel Conger and Major Patterson kept the Foundation going during the next few months. Although neither of them was able to assume the full burden or to continue very long in any active capacity, they undertook to carry through Colonel Lull's plan for an immediate publication. With the cooperation of Major (now Colonel) Leo A. Codd, then Managing Editor of *Army Ordnance*, three articles on military history were written by members and published in the January-February 1935 issue of that journal with a strong editorial on the Foundation.<sup>9</sup> The articles were reprinted with a foreword by Colonel Conger as an *American Military History Foundation Supplement* and distributed to members and potential members. The foreword urged the importance of the publication of narrative history as well as the location of original source materials, defined American military history very broadly, and emphasized that the Foundation was not a military association. "Its purpose," wrote Colonel Conger, "is one of patriotic public service in a vitally important, but sadly neglected field."

Then they set about to find a successor to Colonel Lull. The person selected was Lieutenant Colonel Joseph M. Scammell, a National Guard officer then on active duty in Washington. Although his tour was to end on November 30, 1935, the Board of Trustees appointed him Secretary-Treasurer on March 29 in the hope that he might in the meanwhile work out the basic problems of obtaining a suitable staff and a stable base of operations. The original close connection with the Historical Section had been lost,<sup>10</sup> the initial interest in the objectives of the organization had declined as difficulties blocked the way to success, and the conditions of military service made it hard even for interested officers to lend any effective assistance. Mere creation of the corporation had brought no endowment, and lack of an adequate staff had made any campaign for funds impracticable. The mind of Colonel Lull had been focused, largely because of his experience in the Historical Section, upon the task of making the source materials for American military history properly available. Colonel Scammell brought to the secretaryship a different point of view, essentially that of the writ-

<sup>9</sup>*Army Ordnance*, XV, 229-30. The articles were: Hoffman Nickerson, "History—Military and General," pp. 210-12; Dudley W. Knox, "Navies in the American Revolution," pp. 213-16; and Martin L. Crimmins, "First Stages of the Mexican War," pp. 222-25.

<sup>10</sup>The relationship was by no means severed, however. General Spaulding, Chief of the Historical Section from 1919 to 1924, from 1935 to 1939, and since 1941, served as a Trustee from 1935 through 1941; and Colonel Robert Arthur, his successor in 1939, was a member of the Board from 1939 through 1942.

ing historian and military theorist. Since the writing of scientific military history had not been developed to any great extent in this country, it seemed to him, as it did also to Colonel Conger, that the advancement of historical scholarship in the military field was an objective equally important with that of making available the source materials.

Knowing that he had only eight months in which to accomplish anything, Colonel Scammell felt that his primary responsibility should be to make arrangements to assure the continuation of the Foundation regardless of death, the Manchu law, or other circumstances. To this end he held a long series of conferences with interested persons for the purpose of obtaining advice and finding an appropriate staff. Captain Todd, a National Guard officer then employed at the Museum of the City of New York, had long been interested in military antiquities and was on the point of forming a military historical society. He was persuaded to give up that plan in order to become Secretary of the Foundation. In the meantime the National Archives was being established, and Dr. Irvine became its specialist on War Department records in June 1935. An academic historian profoundly interested in military thought and institutions, he was drawn into Colonel Scammell's conferences and agreed to become Provost. Major Codd was willing to become Treasurer and Editor. These three officers were elected at a meeting of the Board of Trustees held October 25, 1935.

At the same meeting Colonel Scammell reported the arrangements which he had made for the Foundation to hold its first joint session with the American Historical Association. Approved by the Board and organized by Colonel Scammell in spite of great difficulties, it was held in Chattanooga on December 27 and was a distinct success. Three papers were read: "Washington and Frederick the Great," by General Leutnant Friedrich von Boetticher, then German military attaché in Washington; "The Influence of the Medical Department upon Confederate War Operations," by Professor Courtney R. Hall of Adelphi College; and "Force and Policy," by Colonel Scammell.<sup>11</sup> In addition to this joint session, a program of seven papers, the first four of which dealt with source materials of American military history, was presented separately on the following day.<sup>12</sup> It was believed by those who participated in these sessions that a significant step had been taken toward establishing the organization's status as the peer of other learned societies.

Todd and Irvine had both insisted from the beginning of their nego-

<sup>11</sup>Professor Hall's and Colonel Scammell's papers were published for the Foundation in *Army Ordnance*, XVII (July-August 1936), 33-35, and (September-October 1936) 83-89, and the former was republished in *Journal of the American Military History Foundation*, I (Summer 1937), 46-54.

tiations with Colonel Scammell that the stated objects of the Foundation must be broadened. They felt that its scope should not be limited to the American field, they wanted to avoid the term "military history" because of the restricted sense in which it was usually defined, and they urged emphasis upon a more comprehensive aim than the location and preservation of source materials. With the support of Colonel Conger and Colonel Scammell, the desired changes in the by-laws were approved by the Board of Trustees at its meeting in October and by the membership at a business meeting held in Chattanooga on December 30. The new statement of purposes read as follows:

The object of the Foundation shall be to stimulate and advance the historical study of all that relates to war, with appropriate emphasis upon American history and interests and due attention to the following coordinate fields: (1) military and naval operations and biography, (2) military and naval antiquities, (3) military and naval thought, sciences and institutions, and (4) the political science, economics and sociology of war. In particular the Foundation shall strive to promote the free interchange of constructive ideas among its members.

### 1936-1941

For the next six years Captain Todd—and, it should be added, his wife, now a Lieutenant in the WAC—devoted his entire energy, his limited financial resources, even his home, to the task of building up the organization in which he saw so many possibilities. I think that before he resigned early in 1942 to reenter the Army, he was convinced that he had failed completely, but this was because the achievement of the goal he eventually set for himself was impossible. Always aware of the broader implications of military history, after the outbreak of war in Europe he stretched his definition of the subject to embrace the sum total of all knowledge.<sup>13</sup> With this concept and his conviction that its acceptance was vital to the national defense, he was trying desperately to do nothing less than roll back the preceding twenty years of this country's history. Todd did fail in this, and in some other things, but his term of office was by no means unsuccessful. When he became Secretary the Foundation had 199 members; by the end of 1941 it had a membership and subscription list of 590. This is a better measure of his real accomplishment.

<sup>12</sup>Dr. Ralph H. Lutz, "The World War in History: A Survey of Source Materials in the Hoover War Library," first published in *Army Ordnance*, XVII (November-December 1936), 164-65, and republished in *Journal of the American Military History Foundation*, I (Spring 1937), 18-21. Thomas L. Heffernan, "Battlefields and Battlefield Maps"; Colonel Oliver L. Spaulding, "War Department Repositories of Historical Records in and near Washington, D. C."; Dr. Luther H. Evans, "W.P.A. Project for Examining Historical Records"; Dr. Dallas D. Irvine, "Genesis of the French General Staff"; Lt. Col. Donald Armstrong, "Roman Army in North Africa," published in *Army Ordnance*, XVI (March-April 1936), 276-80; and Captain Charles T. Lanham, "Battle of Gumbinnen: A Study in Panic."

<sup>13</sup>See the editorial on "The Total Science of War," *Journal of the American Military Institute*, IV (Winter 1940), 197. Although Todd did not write it in this form, the ideas expressed represent his beliefs at that time.



There was no tangible result of Todd's administration during the first year, but in that time he had come to the conclusion, already suggested by Colonel Conger, that the publication of a periodical devoted to military history was necessary for the continuation of the Foundation as an active organization. Approval of the Board of Trustees was obtained, and the first issue of *The Journal of the American Military History Foundation* appeared on April 1, 1937. Edited throughout the year by a board of which Todd was the most active member, it became almost at once an effective means of attracting, without any fanfare of publicity, new members who were really interested in the field and hence valuable assets to the organization. By the beginning of 1938 he was able to obtain as Editor Dr. Harvey A. De Weerd, then Professor at Denison University and now, as a Major, Associate Editor of the *Infantry Journal*. Almost unique at that time among members of university faculties as an able scholar devoting himself particularly to the study of military history, De Weerd labored assiduously for five years to produce a journal worthy of the subject. His purpose was to make the publication the national vehicle for the presentation of serious, documented studies in military history and economy and to review as comprehensively as possible the current literature in the field. The success of his efforts may best be seen in the pages of the magazine itself, but it is strikingly conspicuous in the collection of essays which were republished last year as *Studies on War: A "Military Affairs" Reader*.<sup>14</sup> The quality of that little volume surprised even the editors, who had been so submerged in commas and footnotes and other technical matters that they had not always recognized the full value of the articles they were publishing.

During 1936 and 1937 Todd was in New York. Dr. Irvine, by now intensely interested in the Foundation, saw in the National Archives' War Department Division, which was organized in October 1937 and of which he became Chief, an opportunity to bring together and develop students seriously interested in the field. The group thus formed was to be, somewhat as Colonel Lull had originally planned for the Historical Section, the nucleus of the Foundation and of a new school of military history. As a first step he employed Todd, who was thus enabled to come to Washington. The importance of this to the organization can scarcely be exaggerated. The War Department Division has played a significant part in its history ever since, and Irvine greatly influenced all of us. For a time a veritable seminar in military history, institutions, and records was conducted, and the members of the staff soon learned that they could not long remain in the Division without

<sup>14</sup>Published by the *Infantry Journal* as one of its "Fighting Forces Series."

becoming entangled one way or another in the affairs of the Foundation. It was by this road that I became Managing Editor in 1939.

Shortly before Todd came to Washington, Colonel Conger resigned, inasmuch as he felt that he could no longer be as active in the interest of the Foundation as the President should be. At an important meeting of the Board of Trustees held on October 16, 1937, Vice Admiral William L. Rodgers, who had become a member of the Board in 1935, was elected to succeed him. Respected as a distinguished officer and historian, loved by all who came under the spell of his gracious manner, Admiral Rodgers was an ideal President for the organization during this period. Meanwhile, Todd and Irvine had been elaborating plans for the future. The objects of the Foundation had already been broadened at their insistence, the journal had been started and its editorship provided for, and a suitable base of operations had been found in Washington. There followed a series of proposals which were approved by the Board of Trustees at its annual meetings in 1937 and 1938.

First, it was agreed that the Directory of Original Sources, upon which Colonel Lull had started work in 1934, would be held in abeyance in favor of the Directory of Secondary Sources. This project illustrates perfectly the problem Todd was up against. With a huge field to cover and no assistance, he amassed large quantities of cards on published materials. Then came the question as to how they should be arranged, and he spent months working out a classification scheme.<sup>15</sup> Greater progress was made for a time after Robert E. Runser, a professional librarian with a definite interest in military matters, became Librarian in the fall of 1940, and announcement was made of plans for a comprehensive bibliography and for a more immediate selective guide.<sup>16</sup> Neither of these was completed, and the organization's greatest contribution to military bibliography has been the coverage of current books and periodical articles in the journal.

The second part of the program was to stimulate interest and exchange ideas through meetings. In spite of the success of those held in Chattanooga, no joint session with the American Historical Association had been attempted in 1936, and it was too late to arrange one for 1937. Plans were made for the Chicago meeting in 1938, but it did not prove to be a huge success. The papers were not particularly appropriate, and the attendance was small. Since then, however, interest

<sup>15</sup>The result of Todd's thought on this subject was published in mimeographed form in 1940 as "An Introduction to the Classification of the New Military History" and "A Tentative Classification System for the New Military History" (Professional Series, Documents Nos. 1 and 3). A more concise description of a later version of the scheme is to be found in *MILITARY AFFAIRS*, V (Fall 1941), 189-92.

<sup>16</sup>*Ibid.*, IV (Winter 1940), 240-41, and V (Fall 1941), 189-90.

in military history has increased, the sessions have been carefully planned, and they have become a recognized feature of the annual assembly of the historical confraternity.<sup>17</sup>

Finally, at the Board meeting of November 26, 1938, it was proposed to change the names of the Foundation and its journal, to provide for institutional representation on the Board as a means of bringing about closer cooperation with other organizations engaged in related fields of endeavor, and to honor persons making distinguished contributions to knowledge or thought in the field of military studies by electing them as permanent Fellows. Todd and Irvine still objected to the limitations of the word "history," and they pointed out that the term "foundation" implied an accumulation of funds which did not exist. They recommended that the name of the organization be changed to American Military Institute, and in an effort to glamorize the journal they suggested calling it "Warfare: A Journal of Military History and Economy." Changes in the by-laws were drawn up and presented to the membership at a business meeting held in Chicago on December 28 and authorized by a mail vote of the whole membership early in January 1939. Although the suggested change in the name of the journal was also approved by a majority vote, such definite opposition was expressed that it was decided to adhere to the principle of the previous title and it became *The Journal of the American Military Institute*. Two years later, the editors, at the instigation of Todd and Irvine but on their own responsibility, rechristened it MILITARY AFFAIRS, retaining the former name as the sub-title. Nothing was done about the institutional representatives until the Board meeting of January 18, 1941, when four were elected: Lieutenant Colonel (now Colonel) Herman Beukema, then head of the Department of History, Economics, and Government at the United States Military Academy; Dr. Edward Mead Earle of the Institute for Advanced Study; Dr. Luther H. Evans of the Library of Congress; and Dr. Ralph H. Lutz, Director of the Hoover Library on War, Revolution, and Peace. No action was ever taken regarding Fellows, and both of these ideas have since been dropped.

In 1939 the Institute undertook an interesting experiment by holding a contest on the relative physical, functional, and tactical characteristics of ten military shoulder weapons of different periods. Financed by a member particularly interested in this problem, cash prizes were

<sup>17</sup>Two papers were read at the 1938 session: "Some Aspects of British Army Life in the Old Northwest," by Dr. Nelson Vance Russell; and "John Hanson and the Northwest Territory," by Dr. Amandus Johnson. For the programs of the 1939-1941 meetings, see: *Journal of the American Military Institute*, III (Winter 1939), 237-38; *ibid.*, IV (Fall 1940), 168; and *MILITARY AFFAIRS*, V (Winter 1941), 245.



offered for the most complete and best documented answers to the prepared questionnaire. Although the contest was widely publicized and over 300 sets of the questionnaire were distributed in this country and abroad, only six persons, all in the United States, qualified in the competition.<sup>18</sup> Conditions in Europe were not just then conducive to such matters, a fact which was unfortunate for the contest inasmuch as American students and collectors are not generally as numerous or as competent in this field. Nevertheless, Todd felt that it had served to call the Institute to the attention of a large group of men interested in a special phase of military history.

An unusual opportunity presented itself the following year for the Institute to publish its first volume of source materials. The Alvord Memorial Commission of the Mississippi Valley Historical Association, newly rejuvenated, was looking for edited documents to publish. Always interested in the military history of the West and anxious to point out the significance of the contribution of the Army in its development, a topic which has largely been overlooked, I proposed a volume of Inspectors General's reports on the Mississippi Valley for the decade prior to the Civil War to be published jointly by the Alvord Memorial Commission and the Institute. This was tentatively approved, the arrangement being that the Institute would edit the documents and the Commission would publish the volume. It was hoped that it would elicit sufficient support to enable us to continue with other materials, of which the supply is practically inexhaustible, as a series of volumes on the many aspects of American military history. Considerable progress was made on the project before other duties forced me to suspend operations for the duration, and it is still planned to complete it at the earliest opportunity.

Following the unpromising joint session in Chicago, Todd undertook a new departure when he called a meeting of the members residing in and near Washington to discuss "*The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies*—its history and contents, its limitations, and its utility to students."<sup>19</sup> The enthusiastic interest engendered by this discussion, held at the Army and Navy Club on June 21, 1939, encouraged him to proceed with his plan to establish a headquarters where he could hold such meetings regularly, bring together the library for the first time, and set up a business office. In the fall of 1939 the Todds rented as their home a residence at 3112 Que Street, N. W., the lower floor of which became the organization's first and only real headquarters. During the

<sup>18</sup>For the results of the contest see *Journal of the American Military Institute*, III (Winter 1939), 239. The winning paper was never published.

<sup>19</sup>A more detailed description of this meeting is to be found *ibid.*, III (Fall 1939), 177.

first winter, regular Thursday evening gatherings were instituted and thoroughly enjoyed by a small group. Entirely informal and pleasantly dependent upon the conversational ability of whoever happened to be present, they were supplemented by occasional more formal programs. Between December 21, 1939, and May 23, 1940, eight planned meetings and an exhibit of the work of local members were held with notable success.<sup>20</sup>

It is to be regretted that a similar series was not undertaken the next year, in which only one meeting of this kind was held. On March 25, 1941, an off-the-record discussion of "The Future of the National Guard" proved what might have been done had anyone had the time to arrange the programs.<sup>21</sup> Attempts were made to start groups in Chicago, San Francisco, and elsewhere, but nothing very tangible was achieved in this direction.<sup>22</sup> In October 1940, partly as a substitute for the meetings of the previous winter, Irvine had started at the headquarters a Seminar-Conference on the Total Science of War, which met for nearly a year. A second group was formed in May 1941, and Todd undertook a Seminar-Conference on the Backgrounds of National Defense Science in November.<sup>23</sup> The few individuals who took part in these ventures gained much, but from the point of view of the Institute as a whole, they were not a satisfactory substitute for the larger discussion meetings of the previous year. Furthermore, they indicate the shift in policy which had taken place as a result of the German victories in Europe. On July 15, 1941, Todd announced his revised concept of the organization's purpose with this statement:

Whether in peace or war, or national emergency short of war, the prime function of the American Military Institute is to mobilize and to organize the interest, the attention, and the intellectual effort of American thinkers and students for the purpose of building in this nation a thoroughgoing public understanding of the experience and current considerations upon which the Government and the Army must found any adequate policies and institutions for national defense.

That was a large order for an organization of less than 500 members, most of whom, whatever their Secretary might have come to believe, had joined because they were interested in military history; it was absurd in view of the Institute's financial condition. Major Benson had suggested in his article that the Foundation could "be launched and maintained for the first five years on the income from \$100,000." It

<sup>20</sup>For lists of the topics discussed, see *ibid.*, III (Winter 1939), 238; IV (Spring 1940), 39; and IV (Summer 1940), 104.

<sup>21</sup>See *MILITARY AFFAIRS*, V (Spring 1941), 49-50.

<sup>22</sup>See *Journal of the American Military Institute*, IV (Summer 1940), 104, and *MILITARY AFFAIRS*, V (Winter 1941), 246.

<sup>23</sup>See *Journal of the American Military Institute*, IV (Summer 1940), 169; and *MILITARY AFFAIRS*, V (Summer 1941), 118, and (Winter 1941) 246.

is impossible to say what Colonel Lull might have been able to do had he lived, but the reality of the existing situation had been recognized when Todd and Irvine changed the name. Actually, the Institute has always been entirely dependent upon its membership and subscription list for funds, and the income from that source has never permitted the initiation of any very extensive program other than publication of the journal. Without it the organization would never have survived, but it preempted the entire income and by 1940, in spite of the generous contributions of a small number of Benefactors, had piled up a very tidy debt.

Todd, who had acted as Treasurer as well as Secretary since 1937,<sup>24</sup> tried hard and faithfully to raise funds, but he had neither the peculiar talents nor the necessary time to devote himself with any marked success to this crucially important activity. Toward the end of 1940, as the financial situation grew really serious, he saw newer but better supported organizations spring up and take advantage of world conditions to accomplish easily some of the things we had been talking about. Utterly frustrated, he sought counsel from a public relations firm and was advised that the Institute had great possibilities—but that raising funds professionally required the expenditure of money. Having none at his disposal, he persuaded Major (now Colonel) Frederick B. Wiener, an attorney then employed at the Department of Justice, to undertake the job. Major Wiener was elected Treasurer on January 18, 1941, but almost immediately went on active duty and resigned. It was during the course of the following summer, as things went from bad to worse, that Todd determined to give up the headquarters and it looked as if the Institute might cease to exist. Finally, through the interest of Lieutenant L. Eugene Hedberg, then Assistant Secretary of the Reserve Officers' Association, Lieutenant Colonel (now Colonel) Ralph C. Bishop, Secretary of the Civilian Military Education Fund, consented to become Treasurer and was elected on November 5, 1941. Admiral Rodgers resigned at this time, and Todd submitted his own resignation in February.

#### *1942-1943*

The past two years have not been unlike the period after Colonel Lull's death in that the primary problems have been to keep the Institute going and to find new officers willing and able to carry on the work. Our present President, Dean Robert G. Albion of Princeton and the Navy Department, was elected by the Board of Trustees on December

<sup>24</sup>Elbert L. Huber, then on the staff of the War Department Division, National Archives, served as Bursar from February 15, 1939, through 1941, but this office was that of accountant rather than Treasurer.

15, 1941. On February 21, Major General Frank R. McCoy, President of the Foreign Policy Association, became Vice-President and Dr. Harold Sprout, the well-known Princeton authority on naval power, succeeded Todd as Secretary. During the course of 1942, Colonel Bishop was called to active duty and both De Weerd and I entered the Army. Although all three of us were able to remain in office until the end of the year, we turned over our respective tasks to others at the beginning of 1943. Dr. Robert H. Bahmer, then Chief of the Navy Department Division of the National Archives but now with the Records Division of The Adjutant General's Office, was appointed Treasurer on January 11, and Dr. Edward G. Campbell, who had succeeded Irvine as Chief of the War Department Division, assumed the editorship for the first two issues of volume VII. Selective Service had other plans for Campbell, and Dr. Stuart Portner became Editor of *MILITARY AFFAIRS* as well as Chief of the Division in June. By the beginning of the present year, both Sprout and Bahmer found their other war-time duties too heavy to permit them to continue, and Captain Hugh M. Flick, formerly Archivist of the State of New York and now of the War Department Records Division in The Adjutant General's Office, was appointed Secretary-Treasurer on February 3. There have been no other casualties reported to date.

It may seem surprising, with this rapid turnover, that the Institute is stronger today than it has ever been. This is in no small part due to the fact that it was forced to limit its activities in order to continue its existence. Faced with having to live within its income, rigid economy was enforced. It was recognized that the journal was the Institute's one vital activity and that it had precedence over everything else, but Hedberg showed us how we could cut its cost 40 per cent and improve the format in the bargain. We all miss the illustrations and the sumptuous paper, but it has seemed more important for the present to become and to remain solvent. Although increased interest in military history as a result of the war has brought in many new members and subscribers, the exigencies of active military service have caused many to drop out temporarily. With over 100 suspended during this period, there had nevertheless been a small net gain by the first of this year. As a result of the friendly interest of Colonel Joseph I. Greene, Editor of the *Infantry Journal*, and the initiative of Major De Weerd, the debt existing at the end of 1941 was completely liquidated during 1943, at the end of which, under Bahmer's watchful eye, the Institute had paid all bills and had a small cash balance.

One of the problems facing the Board of Trustees was finding a place to house the Library after Todd closed the headquarters. In ad-



dition to the original collection of Colonel Lull, outstanding gifts had been made by Colonel Conger, Todd, Wickliffe P. Draper, and Miss Virginia Summerlin. The first Librarian, Bess Glenn of the National Archives, was appointed on May 11, 1940. She was succeeded a few months later by Runser, whose activities were continued as long as the headquarters remained open. In the spring of 1942, through the co-operation of the Archivist of the United States, Dr. Solon J. Buck, space was provided in one of the offices of the War Department Division as a temporary home for the library. Marie Charlotte Stark, who served as Librarian from that time until she left the Division in the summer of 1943, arranged a valuable accession from Mrs. William W. Buckley as a memorial to her husband, the late Lieutenant Colonel Buckley of the United States Marine Corps. Since then George J. Stansfield, also of the War Department Division, has become Librarian and is steadily getting the collection in more usable condition. As yet a small library of about 2,000 volumes, it consists for the most part of standard military works, but there are a few collectors' items, including rare books on military costume, and some valuable periodical files such as the *Journal of the Military Service Institution*, the *United Service Magazine*, and the *Revue d'Histoire*.

The reintroduction of discussion meetings here in Washington appeared to be particularly desirable in view of the growing historical activity within the several military services and the large number of members who had gathered in the capital. As other things straightened out, it was determined to start the present series. On October 21, 1943, at a small exploratory session at the National Archives, Lieutenant Colonel John M. Kemper, Chief of the Historical Branch, G-2, spoke informally on the work of his unit. The interest expressed by those who attended encouraged us to undertake a more ambitious schedule, and the second meeting was held at the Cosmos Club on January 28, when Admiral Harry E. Yarnell read his paper on "The Utility of Military History." It is intended to continue these discussions throughout the spring. The regular meeting with the American Historical Association had been cancelled in 1942 because of the large number of members in active military service and the difficulties of transportation, but the Secretary and Dr. Joseph R. Strayer, chairman of the Association's program committee, arranged a joint session on "The Work of the Historical Sections of the Army" for the 1943 meeting in New York. On December 30, Dr. Walter L. Wright, Jr., Chief Historian of the Historical Branch, G-2; Dr. Robert R. Palmer of the Army Ground Forces; Lieutenant Colonel Clanton W. Williams of the Army Air Forces; and Lieutenant Colonel John D. Millett of the Army Service

Forces read papers on their respective programs. A similar session is planned for this year.

From the beginning of this period of transition serious attention has been devoted to the manner in which the Institute should be run as well as to the purpose for which it exists. At an informal meeting of some of the Trustees and officers on October 20, 1942, a committee was appointed to consider revision of the by-laws, and it finally recommended to the Board of Trustees on January 28, 1944, that both the by-laws and the certificate of incorporation should be amended. It believed that the membership should elect Trustees and that the chosen Board should establish and control policy. Provision for the first of these ideas has been included in the new by-laws, which were adopted by the membership at a business meeting held February 25. Officers have always been appointed by and been responsible to the Board, but the degree to which the latter actually controls policy depends upon the willingness and ability of its members to take an active part in the affairs of the Institute. The present Board, two-thirds of which are in Washington, is in a position to do this. It is composed generally of younger men than it has ever been before, three of them know intimately the difficulties of running the organization as a result of their earlier experience as officers, and six of them are directly connected with the Army, Navy, and Marine Corps historical programs.

As for the statement of purposes, it was believed that the term "military history" should be readmitted but that the breadth of the 1935 version should be retained. Put in legal terminology for the certificate of incorporation, the new statement authorized by the Board and the membership reads as follows:

The particular business and objects of this corporation shall be to stimulate and advance the study of military history, especially that of the United States; to diffuse knowledge thereof by publication, displays, and otherwise; and to acquire and preserve manuscripts, publications, pictures, relics, and other material relating thereto.

This puts the emphasis where it belongs, upon the stimulation and advancement of the study of military history, and permits the Institute to publish, to own its library, and to start a museum.

### *The Future*

For the immediate future the Institute must of necessity continue to limit its activities very strictly. The dangers of living beyond our means have already been demonstrated, and the mistake must not be repeated. This leaves two media, *MILITARY AFFAIRS* and meetings, with which to further the cause of military history. I believe that they can be used most effectively to champion the present historical pro-

grams of the several military establishments. To suggest that the Institute could or should coordinate them would be presumptuous, but it can be of assistance. Support is needed, and friendly criticism might also prove helpful. Comprehensive as the programs now are, it would be strange indeed if there were no room for improvement. It is particularly important to be certain that no significant phase is overlooked and to guard against limiting the objectives too narrowly. By encouraging discussion and publishing articles, not from the point of view of any one service, but from that of the joint effort of all of them, military history as a whole will gain and it may be possible to avoid some of the pitfalls which lay in the paths of predecessors. One challenging problem, for instance, is to find some adequate means of covering combined land, sea, and air operations. No single service is operating entirely in its own element, and each is dependent to some extent upon the others. Will this be reflected in their histories? Similarly, a frank discussion of the experience and problems and difficulties of the Historical Section, Army War College, would be of very real assistance to all of us.

We all wonder what is going to happen to military history after the war, especially those of us who had some interest in it before the present emergency. It is to be hoped that many of those now engaged in various aspects of the subject for the first time will continue their research and writing in the field after they return to their normal pursuits. It is likewise to be hoped that there will be no reaction against military history similar to that which took place after the last war, but hoping is not enough. We must discuss the problem, plan a program, and proclaim our beliefs. The historical programs must be continued within the military establishments after the war, and they must be placed on an adequate footing and in the hands of competent personnel. It is equally, perhaps even more, important to encourage civilian interest in the subject. Professional officers are seldom trained historians, and in some respects, particularly on non-combat aspects such as administrative organization, logistics, and government of occupied territory, professional historians are better qualified to make studies which could and should be of immense value in future planning. Furthermore, it seems almost certain, considering the length of this war and the complexity of the military effort, that no official program could possibly be of sufficient magnitude to cover all phases of it within any reasonable time. Only by obtaining assistance from historians outside the government will the military services be able to obtain the studies they will need.

This implies, of course, that the necessary records will be made available to the historian, a condition that has not always been fulfilled in

the past. There is no reason why properly investigated private individuals cannot be trusted even with secret material in order to accomplish a particular assignment, and most records should be opened to any citizen for legitimate historical research. The public should know, as Major Benson pointed out in 1933, "the strength and the weaknesses revealed by our past military experience." If professional historians are to devote themselves to this field, and if the American people are to be informed, it will also be necessary to give courses and to offer graduate work in military history; eventually, chairs should be established at our larger universities.

Beyond the useful but limited program of encouraging consideration of these subjects through its journal and meetings, the Institute must take steps to put itself in a position to undertake larger activities as soon as possible. Of particular importance, it seems to me, are a more comprehensive publishing program and the establishment of a permanent headquarters. The journal is being increased slightly in size this year and should continue to grow until it contains at least twice its present number of pages. The bibliography begun by Todd should be completed and published, and Colonel Lull's other projects should be reconsidered. The series of volumes planned in 1940 on the source materials of American military history should be undertaken, and a series of narrative histories might well be started. The advantages of the Institute's having its own headquarters are too obvious to require elaboration.

Such undertakings require funds, as our incorporators foresaw. What we have learned since is that raising money and running the Institute require far more time than any one person, or any small group of persons, with other employment can possibly devote to it. Every bit of work put into the organization thus far—and I can assure you that there has been no small amount of energy expended—has been done without a cent of remuneration and in addition to other full-time duties. This has not been sufficient in the past and will not be in the future. Although continued steady growth in the membership of the Institute will enable us to increase the size of MILITARY AFFAIRS gradually, none of these larger projects can possibly be undertaken until there is in the organization someone able to devote a large part of his time and energy to the ever present problem of raising funds. I propose therefore, as a second immediate undertaking, and as an intermediate step toward the fulfillment of the Institute's larger possibilities, that each of us devote himself to the task of finding the means by which we can employ a full-time Secretary-Treasurer.



## MAY 1940: THE PATTERN OF BAD GENERALSHIP

BY STEFAN T. POSSONY

The defeat of France in 1940 is generally attributed to the material inferiority of the French Army. In the present situation when material superiority is passing from the Axis to the United Nations, it is important to realize that the French Army was defeated less because it lacked the necessary weapons, but because it lacked generals. The material inferiority of the French Army in 1940 is, by itself, no sufficient explanation for its defeat, let alone for the exceptional speed and dimension of its breakdown.

In May 1940, the French Army was composed of 115 divisions plus a series of smaller units, totalling approximately 125 divisions.<sup>1</sup> The British Expeditionary Force was 10 divisions strong and the Belgian Army was composed of 22 divisions. There was one Polish division and several other foreign units. Disregarding the Dutch Army, the Allies had therefore some 155 divisions at their disposal. The Germans began the operations in the West with approximately 140 divisions. Since 24 French divisions were employed on secondary fronts, the Germans possessed a slight numerical superiority. The French General Staff anticipated that they would have to fight an enemy superior in numbers, yet the Maginot line was expected to equalize the respective strength of the opponents. Besides, the defender can take the risk of being weaker than the attacker. No steps were taken to remedy the situation, though manpower was available.

The French General Staff did not doubt that the disposable equipment was sufficient for defensive operations. The Government was officially advised by the end of August 1939 that the French Army could effectively wage a defensive war against Germany. No particular apprehension was voiced about even strong German offensive action in the West, though French offensive operations were ruled out for the time being.

The French Army was in possession of numerous and first class artillery. There were 6,000 modern 75 mm. cannon with a range of 7 miles, and 4,000 older, though still useful, 155 mm. guns. An excellent new 105 mm. gun was to supersede the 75 mm. On May 10, 1940, almost 1,500 pieces of this type were ready for action. In addition there were quite a number of heavy guns, including railroad guns

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<sup>1</sup>The figures are quoted from Pertinax, *Les Fossoyeurs: Defaite militaire de la France, Armistice, Contre-Revolution* (New York, 1943), pp 25, 36ff.

and coastal batteries. Altogether, there were 12,000 pieces of artillery with a calibre of 75 mm. or more. To these must be added an important number of 25, 37, and 47 mm. anti-tank guns and of 90 mm. double purpose anti-aircraft and anti-tank guns. These two latter types were considered as the best of their kind in any army. All in all, the Allies must have had almost 20,000 guns of all calibres at their disposal, or approximately one gun for each enemy company.

Unfortunately, ammunition was not available in sufficient numbers for all types of guns. No shells were available at all for the 47 and 90 mm. anti-tank guns; their production had just begun. There is little doubt that the fabrication of ammunition could have been considerably speeded up. No insurmountable technical obstacle prevented this, had only the General Staff shown the necessary energy.

France entered the conflict with approximately 2,500 tanks against 4,211 German tanks. On May 10, France had almost 3,500 tanks, while Germany had probably more than 7,000. Moreover, the French Army had 600 *auto-mitrailleuses* which, according to General Gamelin, could be considered as light tanks. Together with the British and Belgian tanks, the Allies must have possessed 4,500-odd tanks.

On September 3, 1939, the French Air Force had a strength of 1,241 planes. According to General Vuillemin, Commander-in-Chief of the French Air Force, only 495 of these planes were "modern." On May 10, the French Air Force had increased to 1,300 planes, including almost 800 fighters. In addition there were at least 3,000 reserve and obsolescent planes. Approximately 1,500 modern planes were en route from the United States. If the purchase and transportation of these machines would have been speeded up, they might have been delivered in time.

By that time, the RAF had been developed to considerable strength. General Vuillemin asserted that in May 1940, the Allies possessed altogether 3,800 first line and 1,900 second line planes. The Luftwaffe had a strength of 5,000 machines, though it had stronger reserves than the Allied Air forces. German air superiority was therefore hardly overwhelming. However, the Germans destroyed numerous French planes during the first hours of their offensive on the ground.

The quality of the French material was, with a few notable exceptions, inferior to that of the German Army, yet, other things being equal, the difference would not have been of decisive importance. It was largely the inadequate training of the French soldiers which prevented them from using their arms effectively. Although expecting a prolonged defensive battle, the French had failed to develop satisfactory methods for the obstruction of terrain. Almost no use was

made of landmines, though these weapons are, comparatively speaking, quickly and easily produced.

If we study particular phases of the French campaign, we quickly discover that German equipment did not always show the overwhelming superiority usually attributed to it. In Belgium, the Germans were numerically stronger than the Allies, but they did not succeed in breaking through. Not even at Dunkirk when the Allies fought under the worst possible conditions, could the furiously attacking Germans crush the Allied lines. The strongest German offensive of the French campaign was stopped for two days during the battle of the Somme when the French Army was numerically inferior by at least 60 per cent and had lost most of its modern materiel. It could have been stopped much longer had there still been any reserves at hand. Generals Frère and Weygand had finally found appropriate tactics against Panzer divisions and Stukas. Had these tactics been employed from the very beginning, the Battle of France might have taken quite a different course. These tactics must be judged with the understanding that on June 5, 1940, the remaining Allied tanks were not organized into real armoured divisions and that the French Air Force could no longer be effectively used.

To sum up: the French débacle cannot fully be explained by the material inferiority and the production time-lag of the Allies. Admitting even that, for various reasons, ultimate defeat was unavoidable, the material resources of France should have made possible effective resistance for more than 6 weeks. The astounding fact that, for all practical purpose, the French Army was outmaneuvered and beaten during the first week of active operations is due to bad generalship. As in ancient times, it is the general who loses or wins a battle. The strategy of the French High Command was so defective that the Battle of France would have probably been lost even if numerous and excellent modern equipment had been available.

The Commander-in-Chief must anticipate the plans of the enemy. Gamelin could reasonably consider four alternatives: (1) A German attack across the Rhine, which was most improbable because in this case the Germans would have been obliged to cross the double obstacle of the Rhine and the Maginot line, without having the chance of attaining decisive strategic objectives. (2) Germany could attack between the Rhine and the Moselle. In this case the strongest parts of the Maginot line would have had to be pierced, while the German railway and road system does not favour such a line of attack. (3) The Germans could repeat the Schlieffen plan though somewhat improved according to the ideas of General Epp, *i.e.*, extend the offensive through

Holland and strike at the Allied left flank on the broadest front. This alternative had to be seriously considered, though an efficient general staff will hardly repeat a maneuver which failed once and for which the enemy is best prepared. Moreover, the main condition necessary for the success of the Schlieffen plan no longer existed since the Allied left flank was not open as in 1914, but was backed up along the coast. (4) If the French General Staff had based their calculations upon the obvious fact that the Germans had to accomplish a breakthrough and could no longer rely on flanking attacks, they would have asked themselves the question: where is the weakest spot of our line? It would have been almost impossible not to answer Sedan. It was the only place which was not protected neither by the Maginot line, nor by the Belgian fortifications, nor the "little" Maginot line. Sedan could be reached without passing any Belgian or French line. Its only "protection" was the the rough country of the Ardennes. But this "protection" was counter-balanced by the fact that the Meuse can be best crossed in the region of Sedan.

Sedan is the historic "gateway" to France. From there; all important strategical objectives are within easy reach. In 1940, Sedan was the joint of the two main French Army groups, the pivoting point of the French *aile marchante*. For this reason alone, it was among the most vulnerable points of the entire front. It has always been one of the German axioms to attack joints, hinges and pivots, because the command is never fully unified at such places. Whatever hypothesis was made about the German intentions, Sedan had to be strongly protected. There was certainly no reason why this sector was defended by small numbers of second-rate troops only.

It was almost certain that the Germans would march through Holland and Belgium and nobody ignored the fact that the main German forces were placed near the frontiers of those two countries. The French General Staff erred only with respect to the exact direction of the German attack, which they expected against the left wing of their *aile marchante* but which came against its right flank. But this mistake could have been repaired provided it had been their only error.

The French expected the German attack with 100 odd divisions, including all *Panzer-Divisionen*, in the region between Metz-Antwerp and Lille.

The French had between 91 and 96 divisions on the German-Belgian frontier. One army was on the Italian frontier, and some 15 divisions were stationed in Syria and North Africa, though the Italians in Lybia were as yet too weak for any offensive action. Some of these French divisions were of first-class units and could have strengthened the



forces earmarked for the decisive battle. For the advance across the French frontier into Belgium, the French employed 22 infantry divisions and 2 armoured divisions, to which must be added almost 10 British divisions. In reserve were five French infantry divisions and one French armoured division. The offensive wing of the Allied army thus totalled 40 divisions. Was this the maximum that could be mustered for the decisive battle? The answer is: No. Behind the Maginot line, between Sedan and Belfort, the French High Command had cramped 45-odd divisions, of which 13 were fortress divisions. Dispersed over the rest of France were some 20 territorial divisions largely composed of poorly equipped and badly trained elderly men. It would probably have been better if those men had continued to work in the factories, or had taken over the non-combatant duties in the combat divisions. It would also have been possible to use elderly men in the Maginot line, so that some of the 13 French fortress divisions could have been relieved for more active duties. Certainly it was not necessary to support the regular fortress divisions by 30 other first class divisions. Fortifications permit an economy of force. When an army is short of troops, it must put the maximum of troops where there are no fortifications. Besides, the French High Command should have known that the German Army had not more than 20 to 30 divisions in front of the Maginot line, which could have been checked by the regular fortress divisions.

The strategical deployment of the French forces is puzzling in every detail. The Second French Army under Huntziger had, except for dashes into Luxembourg, no offensive mission. It was stationed behind the Maginot line and protected the flank of the Ninth Army under Corap, against which the main German blow fell. Huntziger had seven divisions in line and two in reserve and was as strong as the Ninth Army, though Corap had a partly offensive mission, and lacked the protection of strong fortifications. With two cavalry divisions and one cavalry brigade, the defensive Second Army had one cavalry brigade more than the partly offensive Ninth Army. The Third Army was solidly entrenched east of the Second Army behind the strongest parts of the Maginot line. It had no offensive mission at all, but was composed of 12 divisions and one brigade, thus being the strongest of all French armies. It was almost twice as strong as the Seventh French Army at the left flank of the offensive army group, which had the most difficult mission of the Allied maneuver. Perhaps, the Second and Third Army were to be used for a counterstroke, but this would have required either an attack on the Siegfried line itself or an advance under the flanking fire of the German fortifications. No offensive

equipment was available for such an operation.

One of the most solid rules of the strategical art, and one particularly emphasized by French soldiers, including Foch, is the necessity of large reserves. Reserves are especially important for an army that does not possess the initiative but must adapt its maneuvers to those of the enemy. The French High Command with its incomplete knowledge of German plans and of German military strength should have provided for vast reserves to be used where they were needed. The surplus divisions of the Second and Third Army (and some of the Fourth Army) should have been grouped into a strategical reserve to be thrown into the battle after the German deployment. But there was a reserve body of four infantry divisions, three motorized and one armoured division. Since this reserve was used up in dribblets, the French Army had practically no reserves at all.

Assuming that the creation of strong strategical reserves was impractical, the High Command should have prepared strategical mobility to shift troops quickly to places where they are urgently needed. Napoleon wrote

An army must every day, every night and every hour be ready to oppose all the resistance of which it is capable. It necessitates that the army's various divisions be constantly in condition to support and protect themselves . . . The Austrian tacticians have always neglected these principles by formulating plans in accordance with uncertain reports, which reports, even if correct at the time the plans were drawn up, ceased to be so one or two days later, that is, when operations had to be carried out.

Particular attention must be given to the strange mission entrusted to the French Seventh Army under General Giraud. This army (one motorized cavalry division, three motorized infantry divisions, three infantry divisions) was to advance along a narrow coastal stretch, pass through the bottleneck at Antwerp and to proceed into Holland up to Breda, that is, to move more than 100 miles in two days, under very difficult road conditions. What the Seventh Army was to do once it arrived exhausted at Breda remains a mystery. Probably, it should attack the German right flank. But in order to attack the German flank, the Seventh Army would have had to make a right angle turn, which in front of a strong enemy is definitely impossible. Besides, the Seventh Army would have been obliged to go into battle exhausted and disorganized. From the frontier to Breda, the Germans had to move only 60 miles over a dense road net. An attack on the German flank with seven divisions would be much too weak to have any success. Above all, it was improbable that the German flank would be south of the Rhine at Breda. As it was, and as it should have been foreseen, the Seventh Army ran headlong into stronger German forces and attacked merely with its advanced guards—a full attack of General

Giraud's seven divisions was not possible before the fourth or fifth day.

The maneuver could, perhaps, be justified on the ground that it served to salvage the Dutch Army. Yet the operation was not planned jointly with the Dutch Staff and the French Intelligence Service should have known—and certainly knew—that the main Dutch forces were concentrated north of the Rhine. Therefore, they could not have been salvaged by General Giraud. The mission of the Seventh Army was a remarkable piece of paper strategy. It prevented the Seventh Army for many days from effectively participating in the decisive battle, because, for many days, it was occupied with marching behind the fighting lines. It came into real action only during the preparatory phase of Dunkirk and the evacuation itself. If Giraud's army had continuously fought on the decisive front, the outcome of the Battle of Flanders might have been quite different, particularly so since the Seventh Army was the best equipped of the larger French units.

The faulty employment of the Seventh Army must be directly linked to the breakthrough at Sedan. The Germans could break through the French lines on the Meuse chiefly because these lines were much too weakly held. One division reportedly defended a sector of ten miles. If the Seventh Army had been deployed in Belgium only, its farthest point of penetration being Antwerp, the Meuse line between Givet and Sedan would have been defended by much stronger forces, and, incidentally, also by better troops. In other words, Sedan was left unprotected for the sake of the futile attempt to salvage the Dutch Army. Stronger French forces on the Meuse may not have averted the German surprise, yet the German thrust would have been considerably slowed down, thus giving the French a chance of regrouping.

The French High Command had not sufficiently taken into consideration that France was going to fight a coalition war and that this coalition would be formed during the first minutes of the fight. They accepted fatalistically the prospect that Belgium and Holland would pursue with their own strategy. True, it was difficult to set up military cooperation with the Dutch without being detected by the Germans. Besides, Holland was indefensible, though by concentrating the Dutch forces in Brabant and Zeeland and sacrificing the country north of the Rhine, the army could have been salvaged. The Dutch Army should have had the mission of Giraud's army and operate with all its forces in the region of Breda. Evidently, such a plan was difficult to arrange during the time of Dutch neutrality. Upon receipt of the Dutch plea for help, the Dutch Commander-in-Chief, should have been asked, to immediately get as many forces as possible across the Rhine into Brabant and to retreat into Belgium.

Allied cooperation with Belgium went smoothly, though it was far from being perfect. The French had exact knowledge of the Belgian fortifications which, as a matter of fact, were constructed as part of the Maginot line. The Allied plan was based upon the assumption that the Belgians would be capable of holding the Albert Canal line for three to five days and yield only after having inflicted heavy losses on the Germans. In the meantime, the Franco-British Forces were to occupy the famous KW line between Antwerp and Namur, thus shortening their front by 35 miles and exchanging a bad for a good defensive position.

This plan failed due to the tardy Belgian mobilization; the Belgian fortifications were undermanned and could not absorb the German shock. The Germans succeeded in taking the strongest Belgian fort, Eben Emael, with the loss of seven men. The novel German technique of attacking fortresses with engineers and parachutists was not foreseen. Inefficient intelligence work is responsible for this failure. Yet despite the unexpected seizure of Eben Emael, the Germans would have been unable to bypass the Belgian centers of resistance, had only the fully mobilized Belgian Army been in line.

In spite of these drawbacks, the Allied armies reached the KW line, only to discover that no preparations had been made for its use as a defensive position. The French maps of Belgium were wholly inadequate. The French General Staff ignored the exact disposition of the Belgian anti-tank defenses. No fire plan was prepared, hence no effective use could be made of French artillery. Still, the Germans did not break the KW line. It was voluntarily abandoned after the break-through at Sedan.

Unfortunately, the evacuation of the KW line was ordered much too late. At any rate, the French Army was not regrouped in time to stop the Panzer formations surging forward to Abbeville. The French General Staff, it seems, was informed early enough about the German concentration in the Ardennes. In the night of May 12/13, the Germans attacked strongly the weakly protected sector between Sedan and Dinant. In the evening of May 13, Corap's army suffered a heavy defeat and proved itself incapable of holding its front. During the following night (May 14/15), Corap ordered the retreat from the Meuse. Consequently, the entire position in Belgium became untenable. Yet, according to Reynaud, general retreat was not ordered before the late evening of May 15. Despite the order, the retreat was not immediately executed. On May 16, Lord Gort insisted that the retreat was to begin without further delay. The retreat started in the following night, though at a very slow pace prescribed by Gen-



eral Billotte. General Georges attempted to delay even this slow retreat. Finally, the Sheldt was recrossed on May 19, only a few hours before the Germans reached Amiens and the Channel.

The French High Command had planned no surprise to throw the attacking Germans off their tracks and invalidate their arrangements, though surprise may be the most powerful weapon in the hand of the weaker party. In fact, the French General Staff had not taken into account any of the basic rules of strategy. It did not follow the excellent advice of Fosh: "Inform—better; resist—longer; immobilize—more." The French did neither apply the principle of economy of force, nor of concentration, nor of mobility and surprise.

The German Army was confronted singly and successively by the Dutch and the Belgian Army, by the French First and Ninth Army, the BEF, by some French reserve divisions, and by the disorganized Seventh Army. The Germans were able to always throw stronger forces against each of these Allied units. During the first days they defeated the Dutch Army before it was fully mobilized; they overthrew some eight divisions of the Belgian cover-army, and three divisions on the right flank of the French Army. Fifty-odd dispersed French-British-Belgian divisions were defeated by a concentrated German Army twice as strong.

In conclusion the Battle of Flanders could have taken a much more favorable course for the Allies. It was merely necessary to avoid certain blunders which even in the terms of classical strategy remain unexplainable. If the French had (a) concentrated their main forces at the decisive front; (b) constituted stronger and more mobile reserves; (c) used the Seventh Army for a practical mission; (d) prepared closer cooperation with the Belgian and Dutch armies; (e) retreated quickly and in time from their advanced positions in Belgium. The disaster could have been delayed and perhaps avoided. The battle of Flanders, we must conclude, was lost by faulty strategy.

Inadequate selection methods and the poor individual and collective brains of the French High Command bear the responsibility for the greatest military disaster in modern times. Napoleon said, "The art of war consists in having always more forces than the opponent, *with an army weaker than his*, at the point where one attacks, or where one is attacked by him." The French strategists of 1940 placed insufficient forces at the wrong time in the wrong place. Like Foch in 1918, the French generals of 1940 forgot all they had learned and all they had taught. Unfortunately, it was the only likeness they had with their victorious master. It was Foch's only merit; and it was their only fault.

## HEADQUARTERS GAZETTE

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The annual meeting of the Board of Trustees of the American Military Institute was held in Washington on January 28, 1944. Nominated for positions on the Board for the three-year term ending December 31, 1946, and confirmed at a meeting of the membership on February 25, 1944 were Colonel Joseph I. Greene, AUS; Colonel Clyde H. Metcalf, USMC; Lieutenant Colonel Kent Roberts Greenfield, AUS; Lieutenant Colonel John M. Kemper, AUS; and Dr. Robert G. Albion. Most of the new members of the Board are well known to readers of *MILITARY AFFAIRS*, but for those who do not know them, Colonel Greene is editor of *Infantry Journal*; Colonel Metcalf is historian of the Marine Corps; Lieutenant Colonel Greenfield is chief of the Army Ground Forces' Historical Section; Lieutenant Colonel Kemper is chief of the Historical Branch, G-2; and Dr. Albion, the President of the American Military Institute, is now serving as Recorder of Naval History at the Navy Department.

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Changes in the certificate of incorporation and the by-laws of the Institute were recommended by the Board and approved at the membership meeting of February 25. The revised certificate of incorporation and by-laws are reprinted in the Headquarters Gazette of this issue.

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Captain Hugh M. Flick, AUS, formerly Archivist of the State of New York, was named Secretary-Treasurer of the Institute on February 3, following the resignation of Dr. Harold A. Sprout and Dr. Robert H. Bahmer as Secretary and Treasurer respectively.

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Several public meetings of the Institute have been held during the past quarter. On December 28, 1943 a joint meeting with the American Historical Association was held in New York City, during the annual sessions of the Association. The meeting was given over to a discussion of the Army historical program, and Professor Joseph Strayer of Princeton University presided. Speakers included Lieutenant Colonel John D. Millett, Chief of the Historical Section, Army Service Forces; Dr. R. R. Palmer, Historical Section, Army Ground Forces; Lieutenant Colonel Clanton B. Williams, Chief of the His-

torical Section, Army Air Forces; and Dr. W. L. Wright, Jr., Historian, Historical Branch, G-2.

\* \* \*

At another meeting held in Washington on January 28, Admiral Harry E. Yarnell was the principal speaker. Admiral Yarnell's paper, on the "Utility of Military History," is presented in this issue of *MILITARY AFFAIRS*.

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The February meeting of the Institute, held in Washington on the twenty-fifth, featured a paper by Major Jesse S. Douglas, Historical Branch, G-2 and formerly managing editor of *MILITARY AFFAIRS*. Major Douglas detailed the history of the Institute in a paper reprinted in this issue of the *JOURNAL*. Also appearing at this meeting was Dr. Shepard B. Clough, Secretary of the Committee on War Studies of the Social Science Research Council, who spoke on "Planning Studies of American Experience in World War II."

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George J. Stansfield, Librarian of the Institute, announces the accession of more than 300 volumes received from the Army War College through the courtesy of Colonel Amos Gibson, Librarian at the War College.

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The first of a series of exhibits presented by the Institute on our "Allies at War" opened at the National Archives in Washington on March 6 with a display of photographs, posters, and publications on the British war effort. Similar exhibits on the Chinese, Russian, French, Dutch, and other of our allies will follow.

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A music program supporting the AMI exhibits was held in the Auditorium of the National Archives on March 21.

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### CERTIFICATE OF INCORPORATION<sup>1</sup>

We, the undersigned, all citizens of the United States, and a majority citizens of the District of Columbia, desiring to associate ourselves as a corporation pursuant to the provisions of Subchapter three (3), of Chapter eighteen (18), of the Code of Law for the District of Columbia,<sup>2</sup> do hereby certify as follows:

First. The name or title by which this corporation shall be known in law shall be *AMERICAN MILITARY INSTITUTE*.

<sup>1</sup>As recorded in the District of Columbia Incorporations Record, June 2, 1933, and amended March 24, 1939, and February 28, 1944.

<sup>2</sup>This citation is to the *Code* published in 1925. Citation to the current *Code*, the 1940 edition published in 1941, is chapter 6 of title 29.

Second. The term for which it is organized shall be perpetual.

Third. The particular business and objects of this corporation shall be to stimulate and advance the study of military history, especially that of the United States; to diffuse knowledge thereof by publications, displays, and otherwise; and to acquire and preserve manuscripts, publications, pictures, relics, and other material relating thereto.

Fourth. The number of its trustees shall be fifteen (15), and they shall be known as the Board of Trustees.

In Testimony Whereof, we have this first day of June, 1933, hereunto set our hands.

GEO. S. SIMONDS  
A. L. CONGER  
JOHN R. M. TAYLOR  
C. C. BENSON  
CHARLES E. T. LULL

THOMAS P. MARTIN  
JAMES BROWN SCOTT  
GEORGE P. AHERN  
DUDLEY W. KNOX  
ALLEN R. BOYD

## BY-LAWS<sup>3</sup>

### ARTICLE I. MEMBERSHIP

Section 1. Any person interested in furthering the objects of the American Military Institute as set forth in the Certificate of Incorporation may, subject to the approval of the Board of Trustees, become a member upon application and payment of the dues herein provided.

Section 2. The dues of Annual Members shall be three dollars per annum, payable in advance on the first day of January of each year. Any member whose dues become six months in arrears shall be suspended. New memberships shall become effective as of the beginning of the calendar year in which application is received or, if the applicant so requests, as of the beginning of the following year.

Section 3. The dues of Life Members and of Benefactors shall be a single contribution of fifty dollars and of two hundred and fifty dollars, respectively.

Section 4. All members in good standing shall have the right to attend and participate in membership meetings, shall be supplied without charge one copy of each issue of the journal published while he is a member, and shall have such other privileges as may be prescribed by the Board of Trustees.

Section 5. The annual membership meeting shall be held during December of each year. Special meetings may be called by the President and shall be called by him on the written request of fifteen members. Notice of the time, place, and purpose of all annual and special meetings shall be mailed by the Secretary to each member not less than two weeks before the date thereof. Fifteen members shall constitute a quorum for the transaction of business, and except as otherwise provided in these by-laws all questions shall be decided by a majority of the members voting.

Section 6. Organizations and institutions shall not be eligible for membership but may subscribe to the journal, *provided*, that the price of such subscriptions shall not be less than the dues for annual membership.

### ARTICLE II. BOARD OF TRUSTEES

Section 1. The affairs, funds, and property of the Institute shall be managed and controlled by the Board of Trustees.

Section 2. The members of the Institute present at the annual membership meeting

<sup>3</sup>As amended February 25, 1944.



shall elect Trustees for a term of three years, said term to begin the first day of January following election, *provided*, that the term of one-third of the Trustees shall end on the last day of December of each year, and unexpired terms may be filled by election at any annual or special membership meeting, *and provided further*, that no person shall be eligible to be a Trustee who is not a member of the Institute, and no Trustee shall receive any compensation from the Institute. Before each meeting at which Trustees are to be elected, the President shall appoint a committee to nominate at least one eligible person for each vacancy, but this shall not prevent any member from making other nominations at the meeting. Election shall be by plurality vote, and the nominees receiving the largest number of votes shall be declared elected.

Section 3. The annual meeting of the Board of Trustees shall be held in January of each year. Special meetings may be called by the President and shall be called by him on the written request of three Trustees. Notice of the time, place, and purpose of all annual and special meetings shall be mailed by the Secretary to each Trustee not less than two weeks before the date thereof, and the officers of the Institute will normally be invited to attend. Seven Trustees shall constitute a quorum for the transaction of business, Trustees present by proxy being counted for this purpose, and except as otherwise provided by the laws of the District of Columbia all questions shall be decided by a majority of the Trustees voting.

Section 4. The Board of Trustees may appoint an Executive Committee from among its members for such term as it may deem proper, not exceeding one year, and may delegate to it such powers as the Board may deem proper and as may be in accord with the laws of the District of Columbia.

#### ARTICLE III. OFFICERS

Section 1. The officers of the Institute shall be a President, a Vice-President, a Provost, a Secretary, a Treasurer, an Editor, and a Librarian, each having the powers and duties usually incident to his office.

Section 2. They shall be appointed by and be responsible to the Board of Trustees, which may appoint other officers and prescribe their duties and may combine the offices of Secretary and Treasurer in the same person, *provided*, that no person shall be eligible to hold office who is not a member of the Institute.

Section 3. Officers shall hold office for one year or until their successors are elected and shall submit to the Board of Trustees an annual report and such other reports as the Board may require.

Section 4. The Treasurer shall prepare an annual budget for the approval of the Board of Trustees, and his accounts shall be audited annually by a person or persons designated by the Board.

#### ARTICLE IV. SEAL

The seal of the Institute shall be, within an upright elliptical band bearing the inscription AMERICAN MILITARY \*INSTITUTE\*, an ancient field piece on which is perched an eagle head to sinister with wings displayed and inverted partially in front of a Flag of the United States of America, in front of cannon a pile of six cannon balls, all between the year 1933 and the motto HISTORIA MENTEM ARMET.

#### ARTICLE V. AMENDMENT

The Certificate of Incorporation, except as otherwise provided by the laws of the District of Columbia, and these by-laws may be amended by resolution of the Board of Trustees and the affirmative vote of a majority of the members voting on the question at any annual or special membership meeting.

*Among Our Contributors*

Admiral Harry E. Yarnell, Trustee of the Institute, is on special duty with the Chief of Naval Operations.

General Sir Guy C. Williams, K.C.B., C.M.G., D.S.O., was Deputy Military Secretary to the British War Office, 1923-27; Commandant, Staff College, Quetta, 1934-37; General Officer Commanding-in-Chief, Eastern Command, 1938-41; and Military Adviser to the New Zealand Government, 1941.

Major Jesse S. Douglas, former Managing Editor of *MILITARY AFFAIRS*, is now on the staff of the Historical Branch, G-2.

Stefan T. Possony, author of the recent translations of Erfurth's *Surprise* and von Leeb's *Defense*, is a frequent contributor to the *JOURNAL*.

Brigadier General John N. Greeley is presently serving as military consultant for the Office of the Coordinator of Inter-American Affairs.

Colonel Edward Kimmel is a retired Army Officer now teaching military history at the University of Washington.

\* \* \*

Among the book reviewers, Dr. Stuart Portner, Editor of *MILITARY AFFAIRS*, is Chief of the Division of War Department Archives, National Archives; Dr. Frederick L. Schuman, author of many studies on recent European history, is on the faculty of Williams College; Dr. Marcel I. Weinreich, formerly of the University of Puerto Rico, is now engaged in research work with the Department of Justice; Major David S. Crist, AUS, is a specialist on Eastern European history who has appeared in the *JOURNAL* on many occasions in the past; Dr. Alfred Vagts, the renowned student of military history, is a frequent contributor to *MILITARY AFFAIRS*; Dr. Oliver W. Holmes is Director of Research at the National Archives; Captain Victor Gondos, Hyman Roudman, and George J. Stansfield of the staff of the National Archives are Associate Editors of *MILITARY AFFAIRS*; Jesse E. Boell is on the staff of the Division of War Department Archives, National Archives; Lieutenant Colonel William E. Caldwell, AUS, is an instructor at the Chemical Warfare Service School at Edgewood Arsenal.

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## THE MILITARY LIBRARY

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*Makers of Modern Strategy*, by Edward Mead Earle. (Princeton: Princeton University Press. 1943. Pp. 553. \$3.50.)

*Makers of Modern Strategy* is the most significant book on military history to appear in this country in years and as such is required reading for anyone interested in the subject. Edited by Dr. Edward Mead Earle of the Institute of Advanced Studies at Princeton, it is the collective work of some of the outstanding students of the art of war in the United States. For the most part these students are men and women who attended Dr. Earle's seminar courses at the Institute of Advanced Studies at Princeton, but the volume is not exclusively their product. The commanding role played by them in the creation of this study once again emphasizes the contribution made by Dr. Earle in the field. Attention has been called to his dynamic leadership on many occasions in the past but it seems well to reiterate that in the editing of *Makers of Modern Strategy* he has added further evidence of his talent as a guide and mentor—a talent fully equalled by his ability as an analyst so well displayed in the three excellent chapters that he has contributed to the present volume.

Dr. Earle states in his introduction to *Makers of Modern Strategy*, as he has many times in the past two decades, that "if we are to have a durable peace we must have a clear understanding of the role which armed force plays in international society." The volume is presented as an explanation of "the manner in which the strategy of modern war has developed, in the conviction that the knowledge of the best military thought will enable Anglo-Saxon readers to comprehend the causes of war and the fundamental principles which govern the conduct of the war."

*Makers of Modern Strategy* is concerned with *strategy*, and the concept employed is that of the broadest definition. As Dr. Earle conceives of it, "strategy is the art of controlling and utilizing the resources of the nations—or a coalition of nations—including its armed forces, to the end that its vital interests be effectively produced and secured against its enemies, actual, potential or merely presumed." Founded upon such a thesis *Makers of Modern Strategy* therefore includes a treatment of the nonmilitary, as well as the military factors of strategy.

*Makers of Modern Strategy* is made up of twenty chapters running

the gamut from a study of Machiavelli by Felix Gilbert to an epilogue by Earle on "Hitler: The Nazi Concept of War." Also included are articles by Henry Guerlac on Vauban; Earle on a comparative estimate of Adam Smith, Alexander Hamilton, and Friedrich List; Hajo Holborn on Moltke and Schlieffen; Gordon A. Craig on Delbrück; Harvey A. DeWeerd on "Churchill, Lloyd George, Clemenceau: The Emergence of the Civilian"; Hans Speier on Ludendorff; Derwent Whittlesey on Haushofer and the geopoliticians; Margaret Tuttle Sprout on Mahan; Alexander Kiralfy on Japanese Naval Strategy; and Edward Warner on Douhet, Mitchell, and Seversky.

One may ponder at the inclusion of certain articles or the absence of others on outstanding personalities, operations, or trends, but such criticism cannot detract from the patent meaning of this study. As it stands it possesses balance, includes several chapters that are sheer intellectual *tours de force*, and gives more than adequate coverage to every subject treated. To Dr. Earle, and to Gordon Craig, Felix Gilbert and Harvey DeWeerd, who assisted in this work—and to Datus Smith of the Princeton University Press who saw to it that this and a dozen other books of value in the field were published—we owe a vote of thanks. *Makers of Modern Strategy* not only possesses great intrinsic value, but also goes far in setting the stage for future scholarly research in this country on the art of war.

STUART PORTNER,  
*National Archives*

*Der Fuehrer: Hitler's Rise to Power*, by Konrad Heiden, translated by Ralph Manheim. (Boston: Houghton Mifflin Company. 1944. Pp. 788. \$3.00.)

This current Book-of-the-Month Club selection will disappoint those who look to it for new light on Hitler's role as a military strategist. The narrative closes with the Blood Purge of 1934. It contains some new material on Hitler's war experiences between 1914 and 1918 and on the relations between the Nazis and the Reichswehr. But it is essentially a personal, social and political history of the man who most nearly symbolizes in his own character and career the whole mad tragedy of the 20th century. And for those who want new insights into this amazing and appalling phenomenon, now familiar but still somehow incomprehensible, this is *the* definitive biography to date of the diabolical Reichskanzler. Heiden has been studying and fighting the man and his movement since 1922. The rich promise of his earlier works, *Adolf Hitler* and *A History of National Socialism*, here comes to full fruition.



Never before have Hitler's ancestry, family background, childhood and youth been set forth in such painstaking detail. Never before have the hidden psychological roots of Nazi fanaticism been subjected to such elaborate and brilliant dissection. Heiden's tale is the story of the dream of world dominion, nourished in the warped souls of desperate little men—"armed Bohemians," ex-soldiers, psychopaths and criminals—and brought to evil flowering by the fears, frustrations and ambitions of industrialists, aristocrats, generals and reactionary politicians. *Der Fuehrer* should be read and pondered by all who are concerned with orienting themselves correctly to what Heiden termed, in an earlier work, "The Epoch of Irresponsibility." This injunction is dictated by two considerations: (1) strategy, diplomacy, politics and personal insecurity are more than ever inseparable in our time; (2) Fascism is not a German or Italian or Japanese disease but is, and will continue to be, a universal symptom of the sickness of our civilization. No cure of this sickness is possible without adequate diagnosis. Konrad Heiden has made a notable contribution to such a diagnosis.

FREDERICK L. SCHUMAN,  
*Williams College*

*Russia and Postwar Europe*, by David J. Dallin, translated by F. K. Lawrence. (New Haven: Yale University Press. 1943. Pp. 223. \$2.75.)

In his highly competent work, *Soviet Russia's Foreign Policy, 1939-1942*, published less than a year ago, Dr. Dallin developed the thesis that Soviet foreign policy, during the years indicated, had the primary objective of holding the Soviet Union apart from the rest of Europe as a lone "third power"; that is, the Soviets distrusted all powers or combinations of powers and, therefore, sought security in isolation and consequent freedom of action in the European arena of diplomacy. It was the uncertainty of the Soviet position, according to Dr. Dallin, that allowed the Germans to swing the balance in their favor in 1939.

In *Russia and Postwar Europe*, Dr. Dallin ably amplifies the main thesis of his previous book and goes on to analyze and explain current Soviet policy and objectives and probable postwar policy and aims. Generally, his conclusions are not optimistic in terms of a peaceful postwar Europe or from the viewpoint of the United States, England, and some of the various intimately involved "Free Governments" at present residing in London. For, according to the author, the Soviet Government's basic war and postwar aim is the creation of a "security sphere" in eastern and southeastern Europe and this "sphere" can come into existence only with the annexation of border lands and at the ex-

pense of previously (prior to 1940) independent states. It is the author's conviction that the Soviet will allow nothing to interfere with its claim to the basic elements of the "security sphere" and at the same time will strive with every available means to extend its influence even further west into the territory which lies between the U.S.S.R. and Germany and Italy.

Dr. Dallin's basic conclusions are of particular interest in view of Premier Molotov's statement to the Supreme Council of the U.S.S.R. in Moscow on 1 February 1944,<sup>1</sup> that the sixteen Union Republics then composing the Union would henceforth have the right to pursue their own foreign policy, and raise their own armed forces, which would form component parts of the Red Army.

To this reviewer the importance of Dr. Dallin's book, and it is an important work which might well be read by all persons interested in Soviet aims, lies above all else in its bringing home the fact that apparently the foreign policy of the Soviet Union is dynamic in the extreme and that its aims are fixed. It follows, therefore, that other powers engaged by choice or necessity in the European arena must understand these dynamics of policy and objective if they are to be able to work with the Soviet Union toward creating a peaceful postwar Europe which will stand firm on the foundations of individual state sovereignty and independence of action.

DAVID SCOTT CRIST,<sup>2</sup>  
Major, AUS

*The Road to Teheran, The Story of Russia and America, 1781-1943*,  
by Foster Rhea Dulles. (Princeton: Princeton University Press.  
1944. Pp. 279. \$2.50.)

To students and amateurs of European history and international relations, *The Road to Teheran* does not offer a great deal of new material. Since Mr. Dulles most probably does not address that negligible minority, it is to be assumed that he intended his publication for the benefit of the vast rank and file majority of the species *homo americanus*, whose cultural autarchy made him ignore realities lying beyond the horizon of God's Own Country. Considering that this fundamental attitude is responsible for the general isolationism of all good average U. S. citizens not only in the political but also in the linguistic and historical sphere, this book is a welcome antidote for the introvert dreams of our modern Yankee Rip van Winkles.

<sup>1</sup>Dr. Dallin's work was in print well before 1 February 1944.

<sup>2</sup>The opinions expressed and conclusions drawn in the above review are those of the individual officer. They do not necessarily represent official War Department opinions nor that of the service at large.

A pleasant feature of the work is the refreshing absence of footnotes and marginalia, which is a praiseworthy self-restraint for a university teacher and researcher. Instead, we find an agreeable innovation: an appendix of bibliographical references, summarily arranged by chapters. And this is consistent, for Mr. Dulles wants to be a "story" teller, not a historiographer. The book could be a transcribed one-year introductory survey course, lectured informally to an orientation class in good-neighborly geopolitics.

Facts and desiderata intermingle in the study more or less explicitly. It seems as if the author examined the past rapports between the Russian and American peoples in order to formulate his idea as to what their future relationship *should be*.

We receive the impression that Author Dulles conceived the inter-related evolution of the two hemispheric countries as a teleological path, leading inevitably toward one of its highlighted junctions—like *e.g.* that of Teheran and its new *entente cordiale*. Both Russia and the United States are represented as possessing similar national character and aspirations, harmonizing and complementary in nature. History has entrusted them with the mission of producing and preserving an unshakable peace for the entire world, an everlasting peace which both nations intensely crave.

Mr. Dulles wishes the statesmen in Washington and Moscow could interpret the meaning of the historical road signs pointing ahead from Teheran, and would realize that they must journey together still further along that pre-ordained itinerary if America and Russia are to achieve the indispensable close co-operation and unity and thus fulfill their respective and interdependent destinies.

The timeliness of this comparative inquiry, viewed especially as a background documentation for the burning problems and necessities of the intercontinental tomorrow, is incontestable.

MARCEL I. WEINREICH,  
*Department of Justice*

*The Russian Army*, by Walter Kerr. (New York: Alfred A. Knopf. 1944. Pp. 250. \$2.75.)

American journalism has tried hard to appreciate the war abroad for the home folks. The eyewitness accounts that have resulted form an invaluable record of contemporary history, and have helped us in understanding and working with our allies. The single possible exception to the rule is Russia. Excepting Henry C. Cassidy's *Moscow Dateline*, no reporter has yet succeeded in getting across something of the warmth as well as the desperation of the Russian people—that

articulate sympathy which worked so magnificently for Britain.

Kerr's summary falls within this category of failure. There are enough good points to justify its publication, for it is probably the most simplified and readable exposition of Russia's tactics and strategy yet to seek the average American reader. Portraits are good: the descriptions of the generals he met will stand for history, and lesser people who are at the core of anecdotes help illustrate the text. And the reflection of the iron resolve and tremendous power of the Russian nation does carry through.

Had he been permitted to see more, perhaps the personal contribution would not have been so slight. The limitations of a newspaper man who is neither a student of war, nor an historian, nor an aesthete, have operated to strip the cultural frame of reference of all that carries feeling, texture, or depth of background. The narrative is flat, two-dimensional straight reporting. Factually or emotionally too much is lacking. The sieges of Moscow and Leningrad in the official versions have been told before; the author's chance as an American was to get color, strive for reality, for awareness of differences and those instantaneous impressions which sensitivize an audience. As he was not permitted to see much in the way of operations, it was all the more necessary for him to see with the mind's eye.

What is particularly to be regretted in a book on the Russian Army is the inadequate grasp of the cradling of that army from its long past of technical-sociological inferiority and massive resistance to its revolutionary present. This has so many racial-political ramifications that some paragraphs on Pan Slavic military coordination within the Red Army (and in occupied Europe) would have helped fill the thin cultural atmosphere as well as contributed to an understanding of its direction, reach and European human content.

HYMAN ROUDMAN,  
*National Archives*

*Road to Tunis*, by David Rame. (New York: Macmillan Company. 1943. Pp. 296. \$2.50.)

This has been a war in which the war correspondent's book has reached the bookstands at home almost with the news of the battle. But there has been a sameness in much of even the best reporting of this war—a sameness in thinking as if the book of most correspondents followed willy-nilly a pattern labeled "outline for a war correspondent."

David Rame, who chooses this *nom de plume* in place of his rightful and better known name of A. D. Divine, is a writer who in his *Road to Tunis* breaks out of the war correspondent's usual constricting mold.



Mr. Rame presents a picture of the Tunisian Campaign which, while often incoherent and plagued by an attention to inconsequential detail, is still an account to set the mind wandering along roads not often trod by other of our contemporary chroniclers of military affairs. The central devices by which Mr. Rame accomplishes this break with the run-of-the-mill work of the war correspondent are mainly an imaginative attention to the ancient history of the modern battlefields of the Tunisian Campaign and a perceptive, almost an exquisite feeling for the many little human oddities that make war the grotesque business it is.

David Rame has a real and really amazing sense of history and of the past. Either he is a man superbly educated in the classical tradition of the English scholar, and with an infinitely more retentive memory than most of us, or he is a man who has done a tremendous amount of painstaking research to correlate the battle events of yesterday with the battle events of a long past day. Throughout the book, you see the British Tommy and the American Doughboy fighting, sweating, bleeding and dying on the same battlefields that centuries ago had known the marching feet of the Roman legionnaire, the Carthaginian, the Vandal and the many armies of the Moslem men of war. Wherever Mr. Rame travels or rests, he sees his surroundings not only in terms of today but in terms of what went before. He pitches his tent in a gully sheltered from the wind that sweeps through Kasserine Pass and to him it is more than a forlorn patch of cactus-studded desert. Of his campsite he writes, and it is typical of both his content and style, "Rome and Feriana had spread over those hills and gullies. Past where we slept an aqueduct, tunnelled for the most part in the soft earth, ran to where the ancient city had vanished."

He has a fine sense of the incongruities of a modern war in an ancient setting. A jeep is described as it stands beside a Corinthian column; a battery of high-powered anti-aircraft guns take for their camouflage a weathered Roman ruin; the bullet from a modern, high-powered rifle nicks a chip from a centuries old stone; a caravan of camels plods disdainfully through the billowing dust clouds in the wake of a flying column of half-tracks.

And he has a fine sense of the little human incidents which tell a story better than pages of descriptive text. If you want to see the meeting of the doughboy with the Arab in the primitive biblical setting of Tunisia, I can report from personal experience that you can do worse than remember Mr. Rame's taut little description of the Arab's method of barter. He speaks of the Kabyle tribesmen, white sheeted, ghostly and omnipresent. "Seventy years ago," he writes, "they came down from their mountains with sword and dagger and silver-encrusted gas-

pipes to plunder the French; now they came down to plunder the Americans. They no longer needed swords, guns were redundant; all they needed was two eggs to hold in the left hand and an infinite patience." How can the story of Arab vs. Doughboy be better told?

It would be wrong, however, to give the impression that Mr. Rame devotes all his text to historical analogies and atmosphere. There is good, clean military analysis of some of the campaigns he lived through himself. Though his over-all picture of the far-flung campaign is often obscure, he does well with those battles he saw for himself. Particularly memorable is his description of the American defeat at Kasserine Pass and in his words you see that from this defeat there emerged a better American Army and a better American soldier. There is a well-done picture, too, of a tragic mistake in which an American battery was almost annihilated by the bullets of our own Lightning fighters. And here, too, Mr. Rame tells the rest of the story—the recognition by our High Command that our pilots must be exhaustively and intelligently briefed in the matter of recognition of our own and our Allies' ground equipment from the air.

Mr. Rame is not backward in his criticism where he feels it is deserved. Of the series of Allied mistakes leading to the disaster at Kasserine he writes, "We were forestalled by the Germans. With monotonous regularity throughout the whole campaign, we were forestalled in every important move that was projected, until the time came when even forestalling made no difference." Of the American Army's Public Relations Staff he writes, "If the young men who sported so cheerfully at Oran at Christmas time had been more interested in the fighting areas, possibly better things would have resulted." Of the French in North Africa he writes, "There were as many parties in Algiers as in that fluctuating arena (the pre-war French Chamber of Deputies)—as many policies, and as many honesties."

*Road to Tunis* is a good book in that it is transparently honest, imaginative, often constructive and written by a man with a fine descriptive pen. Its main faults are that it is too long and often too occupied with presenting so many details that the central thread of the narrative becomes easily lost. In many, and perhaps in obvious ways, Mr. Rame seems to strive for the fine sweep of T. S. Lawrence's *Seven Pillars of Wisdom*—that classic of the last war's Arab campaigns. If this was his aim, Mr. Rame has failed to achieve it. He has, however, written a book as good as any of the Tunisian campaign, and better than most of the necessarily hurried chronicles of this war.

MARTIN AGRONSKY,  
*Blue Network*

*Pipeline to Battle, An Engineer's Adventure With the British Eighth Army*, by Major Peter W. Rainier. (New York: Random House. 1944. Pp. 302. \$2.50.).

A permanent contribution to the history of the War in North Africa from Wavell's Army of the Nile in 1940 to Montgomery's victorious entry into Tunis in 1943 is found in this brilliantly written panorama.

A soldier in World War I and a mining engineer in remote regions of the world, Rainier began as the oldest subaltern and ended as the chief water supply officer on the 2,000 mile Bengazi stakes pursuit of the Africa Corps from El Alamein to Tunisia. He performed an outstanding engineering achievement in this capacity since *unrationed water laid to the front line machine-gun post is something new in military history*. Furthermore the author's duties of supplying precious water in thirst-parching desert war gave him an unusual understanding and perspective, which highlight his description of the campaigns. Not only can we experience them as they appeared to the onlooker, but the major strategic moves also are outlined so that the whole as well as the limited range can be visualized.

Americans will be interested in Rainier's detail of his visits to the American Army. The Americans impressed him favorably especially because of their willingness to learn. He felt that the American method of camp organization was superior to the British; their fire power was considerably heavier per man; they were trying to live in a Spartan manner, and declares it sufficient to say that they were as keen and as hard as the war-toughened British.

The most important lessons to be learned from his observations were the tremendous difficulties in supplying armies in this accelerated war and the tragedy of sudden death occurring in a moment's carelessness in mined areas which seemed safe.

G. J. STANSFIELD,  
*National Archives*

*What to Do with Germany*, by Louis Nizer. (New York: Ziff-Davis Publishing Company. 1944. Pp. 213. \$2.50.)

Approximately three-quarters of this book is devoted to the well-worn theme of what is wrong with Germany. Her evil doings, the author contends, are not due to inherent biological traits, but rather to mythological traditions traceable to Wotan, and to the chauvinistic concepts of nineteenth century nationalist philosophers. Perhaps the public can still be titillated with the shopworn ghosts of Treitschke, Nietzsche, Fichte & Co. We are inclined to believe that reams and reams of pseudo-philosophical piffle have been wasted on those badly

frayed whipping boys. The Italian General Douhet, whose total air war visions we are now executing, compressed in four simple words the motivations of conquerors from age immemorial, *they want more land*. Shedding the sawdust and the packing, that's all there is to it. Our job is to see to it that they don't get more land. Land means power, and in fighting an old-fashioned preventive war we are fighting in defense of our future.

Whatever the lay public may find in this work by way of entertainment, the student of history may as well proceed to other business. The author's historical perspective is, to say the least, sleazy; his references are polemical works and journalistic articles, and a fair sprinkling of secondary books based on objective historical scholarship. In his writing method the author assumes his normal habit of a good lawyer. He has a case to try and with unerring selectivity he chooses the examples that fortify his argument. The procedures of modern historiography, however, are quite different from those of an attorney trying a case for either plaintiff or defendant. Although we do not always hold with the views of Dr. Dorothy Thompson, the lady put it aptly when she wrote, "This school interprets history as a mystery melodrama and traces down the villain. But various wings of it find various villains." The left-wing thinkers, the conservatives, the liberals, and the what-have-yous, each have their own favorite brand of conspirators and it's Hobson's choice.

Starting, then, from a conspiratorial concept of history, the author concludes that besides rendering Germany harmless for further eruptions (a truism about which those giving lives and legs and buying bonds and Treasury tax notes will have little difference of opinion), the German people must be re-educated in democratic ways. To effect the latter program an "International University" is advocated, which would devise the details of curricula, teachers, and texts, and supervise the instruction. The sovereignty of Germany would be restored after a long training period, but only when the faculty of the International University officially certified that the German people were prepared to resume their international obligations as equal members of the society of nations.

The relationships of human groupings, in accordance with nature's law of the ceaseless struggle of every living being, have always been power relationships. Because our people have been happily favored by geography, climate, and race composition, this cardinal and everlasting truth has often been obscured, until a naive belief in goodwill has become the international hallmark of the American. To maintain the delusion that the struggle we are now engaged in will repeal or destroy



the timeless law of the ages is to compound a disservice to ourselves—the American people. Cuneo, the able American historian of the air weapon, expressed the truth pithily: "Man, wavering in the worship of many gods, has never deserted the temple of the God of War."

Speculations of the type mentioned here appear beside the mark when confronted with the stark reality of the day, namely, that there is still a war to be won; and that the power relationships that will result from the war are, at best, the subject of sheer guesswork. The ten million uniformed Americans, on whose shoulders fate rests, can hardly find nourishing spiritual food in tropical speculations. Ernie Pyle talks their language, he talks the language of the American people. And all the pulp writers in New York and Chicago have less reality in them than the little finger of Ernie Pyle. In fact, one may say, they could all stand a dash of Pyle.

VICTOR GONDOS, JR.,  
*National Archives,*

*Organization of American Relief in Europe, 1918-1919, Including Negotiations Leading up to the Establishment of the Office of Director General of Relief at Paris by the Allied and Associated Powers.* Documents selected and edited by Suda Lorena Bane and Ralph Haswell Lutz. (Hoover Library on War, Revolution, and Peace. Publication No. 20. Stanford University: Stanford University Press. 1943. Pp. 745. \$6.00.)

Few collections of historical documents, usually prepared for the benefit of the historian, have as much significance for the contemporary administrator as does this one. Relief for Europe is again being organized, with American funds and American supplies destined to overshadow the contributions of other nations, and with an American Director General in charge. The organization of today will do well to make this volume its textbook, for the documents it contains reveal most of the difficulties which such an organization must face and overcome: the conflicting interests of the victor nations, which manifest themselves when hostilities cease and which have to be counteracted or reconciled; the intricacies of finance; and the difficulties of relief in countries where political control, transportation facilities and economic machinery have deteriorated to the point where their restoration becomes an integral part of the problem.

Altogether this volume contains some 400 documents taken almost entirely from the records of the Food Administration and the American Relief Administration in the Hoover Library. The choice has been made with commendable discretion. The documents contain the essen-

tial data on the organization and administration of the Relief Administration, and its relations with the several Allied supreme bodies, with the Food Administration and Grain Corporation, and with the Allied Railway Commission and the Inter-Allied Danube River Commission. Directives to, and reports from, the subordinate missions are included. Few documents are printed that could have been omitted without loss of significant information.

At best, however, time and patience on the part of an administrator are required to glean pertinent information and lessons from a compilation like this one. Much assistance could have been rendered by an introduction containing a brief outline of the complicated administrative history of the American Relief Administration instead of leaving the user to puzzle this out for himself from the documents. President Hoover's recent article "We'll Have to Feed the World Again," although of interest in this connection, is by no means adequate as an introduction. There is also a serious lack of information concerning the provenance of the individual documents. The reader is not told from which body of records a document is taken, much less from which particular file. The reader is not informed when the document as printed is based upon a carbon copy instead of the original that was presumably sent. Many important memoranda and statements are included, the impact of which the reader cannot judge because he is given no clue as to who saw them or as to what use was made of them. The answer to many such questions can only be discovered by investigation in and correlation with other bodies of records not in the Hoover Library. Presumably, there was too little time or opportunity for such research if the volume was to appear when it could be most useful.

OLIVER W. HOLMES,  
*National Archives*

*The Invasion of Germany*, by Curt Riess. (New York: G. P. Putnam's Sons. 1943. Pp. 205. \$2.50.)

The attention of readers of this magazine was called to Mr. Riess twice before, when he was signalized as a sensationalist treating great military problems of the hour with slight respect for or knowledge of the relevant facts. He may be announced this time as one who has turned from sensationalism to triteness—with all that is involved in the difference between trite and simple—in the treatment of the greatest and most difficult military tasks of the near future, and the near past as far as Italy is concerned. On the whole, the little book reads as if its author had told himself that if the topic is sensational enough,

he might get away with a vast deal of triteness, which besides is a lesser source of errors. This is not to say that he got all his history or geography right this time. He calls the 8th of August 1918, the black day of the German Army, "the day when the French and the British made their first break through in the German line"; actually, the day was fought by Dominion troops. On the same page a Major von dem Busch is introduced whose true name is von dem Bussche. And so it goes wherever one does a little probing. But undaunted, he offers himself as a Baedeker to guide presumably innocent Americans along the invasion routes into Germany, an offer which is as much below the services of the conscientious Baedeker as are the offers and performances of any little cicerone in Florence or Assisi. He is very reassuring to his public, in the manner of these guides. He gives them little pictures, maps of Europe with important looking arrows pointing to likely beachhead locations which attain new lows in map innocuousness. He promises them action: "It is my firm conviction that mere inactive waiting will certainly accomplish nothing. To those who warn against the risks of attack, the only sensible reply is that mere waiting, too, is not without its risks" (12).

While Mr. Riess shies from the discussion of the forces necessary for the invasion, he knows where the decisive battles of this war will be fought, if Germany does not collapse before that last battle—for "all decisive historical battles fought on German soil took place somewhere in that flat region, somewhere along the diagonal line stretching from the SE to the NW," the region where Leipzig, Rossbach, Jena occurred. But not only are Rossbach and Jena battle in which hills provided the main features, but there were other battles inside Germany usually considered equally decisive—the battles of the Teutoburger Wald, the Lechfeld, Tannenberg (twice), Blenheim, Düppel, which did not fall into this battle region. But according to Mr. Riess, the *Schlachtendenker*, "it is there that all the strategic invasion routes to Germany converge. Here is the strategical goal of every conceivable invasion plan. For only from here can Germany be dominated strategically." Even if Mr. Riess had got his places right he would still be wrong on his time. For "invasion routes" and strategical domination, whether put around Leipzig or on the plateau of Langres as in the campaign of 1814, are *ancien régime* platitudes, for which there was some justification, put into circulation again by a 20th-century journalist who pretends to know military history, and who at best knows the psyche of the market for books like this, or the psychology of the German people which our own war propaganda hardly treats rightly as yet. Today there are no more *batailles aramies*, as the middle ages called battles

arranged beforehand, no battles arranged for by so-called geopolitical facts. The enemy must be beaten wherever he is and prefers to make a stand; he will make a stand in various places and various manners and against these our own choice comes in.

ALFRED VAGTS,  
*Gaylordsville, Conn.*

*A Bell for Adano*, a novel by John Hersey. (New York: Alfred A. Knopf. 1944. Pp. 269. \$2.50.)

This is a novel of the operation of AMG in Adano, a town on the island of Sicily. The author, John Hersey, a correspondent of *Life* and *Time* magazines, spent some three months during the summer of 1943 on this island. That John Hersey knows of what he is writing is evident throughout the book. That he knows and recognizes the responsibilities and obligations of the officers in AMG is skillfully projected through the book's main character, Major Victor Joppolo.

That the success of all programs depends on the men administering them is clearly indicated in one of the early scenes. Major Joppolo, the military governor assigned to this town, on arriving at his station spends one brief moment reflecting on his elaborately prepared plans and on the first day decides to tear up his notes and from that time he proceeds to act on his own broad concept of democracy.

The reader will get some insight into the problems faced by the officers of AMG who are called upon to help solve the problems of the citizens of war-ravaged countries. He will also get a glimpse of the workings of government red tape, some few notions on how red tape can be unraveled and, above all, he gets a clear picture of what happens to a major in the army when he countermands an order given by a general.

It is with great regret, both for the future of the major's faith in democracy and for the future of the town of Adano and others to follow, that the major is recalled from his assignment by a stupid, blundering General Marvin. The reader should like to be able to see into the future and find that the major is vindicated, that the army process, which made possible the removal of an officer from an assignment in which he was doing a good job under trying circumstance, is amended better to fit the democratic process which should be the "American Way."

J. E. BOELL,  
*National Archives*



## SHORT REVIEWS

*Pyrotechnics, Civil and Military*, by George W. Weingart. (Brooklyn, New York: Chemical Publishing Company. 1943. Pp. 232. \$5.00.)

The book comprises a section on ingredients used in making pyrotechnic articles, a section on tools and appliances used by the small scale manufacturer or amateur, and a comprehensive section on the manufacture of the numerous pyrotechnical articles. The book as conceded by the publisher treats pyrotechny as a craft rather than an art. There is a definite lack of the scientific why of proportions of ingredients or how chemically certain mixtures work. In the brief introduction, explanation of terms (such as spontaneous combustion) are not clear and somewhat erroneous.

The section on ingredients is a good listing of materials used in pyrotechnic mixtures. Prices of ingredients are quoted per pound, but we must acknowledge place and time price variations.

The section on manipulation is exceptionally good for the amateur or prospective small scale manufacturer. It includes explanation of making cases or containers to be filled with pyrotechnic mixtures, procedure for mixing ingredients, warning of hazards involved and precautions to be taken.

All the numerous pyrotechnic articles from roman candles to pin wheels, from giant crackers to skyrockets are individually discussed as to manufacture. Inasmuch as the book is in part titled military pyrotechnics more attention might have been given to flares and signal devices. It is mentioned that military specifications adequately cover military items of need and thus not presented fully in the book. Other military interests related to pyrotechny such as smokes and incendiaries are merely mentioned or inadequately covered. The book, then, has little interest to the military pyrotechnist.

The book is of especial merit for the amateur who would make his own fireworks and we want few such amateurs. It would be most helpful to the new small plant pyrotechnic manufacturer. The book is fine as a reference for formulas of different purpose pyrotechnic mixes.

WILLIAM E. CALDWELL,  
Lt. Col., AUS

*The Siege of Leningrad*, by Boris Skomorovsky and E. G. Morris. (New York: E. P. Dutton and Company. 1944. Pp. 195. \$2.50.)

The Russian ability to hold Leningrad for two years while German forces laid siege to the city will be recorded as one of the outstanding achievements of the present conflict. The Russian forces showed rare skill and courage in preventing the fall of this important bastion in the north and demonstrated even greater resourcefulness in rolling back the Nazi invaders in the winter of 1943-44. The analysis of the military operations in this sector of the vast Eastern European front has not been written as yet and must wait studies of future students of military history. For the present we have short journalistic accounts of the life of the residents of Leningrad—and the Skomorovsky-Morris volume is the first full-length volume to appear thus far in the United States on Leningrad during the years 1941-43. For those interested in military affairs, it will give only a sidelight, a human interest story of the daily existence of the residents of Russia's second largest city during two years of siege by a powerful army.

A. N. MCGILLIVRAY,  
Washington, D. C.

*The Navy At War—Paintings and Drawings by Combat Artists*, commentary by Hanson W. Baldwin. (New York: William Morrow and Company. 1943. Pp. 159. \$4.00.)

By adroitly balancing illustration and text, Hanson W. Baldwin offers in *The Navy At War* one of the basic works in the comprehension of naval action in World War II.

The five artists, Lieutenant Commander Griffith B. Coale, Lieutenants Dwight C. Shieler, William F. Draper, Albert K. Murray, and Mitchell Jamieson, have depicted land, sea and air battles in various zones after participating in these conflicts. Here are to be found reproductions of paintings illustrating the grey routine of convoy duty in the North Atlantic, construction work in the Caribbean, to the South Pacific battles of 1942 at the Solomons and Ellice Islands. Other areas covered were the Aleutians and that opposite of locale, North Africa.

B. DALRYMPLE,

## NOTES

*Muzzle Flashes—Five Centuries of Firearms and Men*, by Ellis C. Lenz (Huntington, West Virginia: Standard Publications, Incorporated. 1944. Pp. 812. \$7.50.) contains illustrations of exceptional interest since the author's gun drawings have brought out essential details never before achieved. For these alone the well planned volume is worth while but it also includes discussions of earlier firearms and some of their users, of small arms inventors and makers. The remainder of the volume is more concerned with details dear to the gun-lover's heart yet in which are found nuggets of general interest.

In the pocket sized edition of the *Report on the Army July 1 1939, to June 30, 1943*, of General George C. Marshall as Chief of Staff to the Secretary of War (Washington, D. C., *The Infantry Journal*, 1943. Pp. 271. \$.25) is made widely available an indispensable document for understanding the events of the past and which gives a sound basis for hopes for the future.

An excellent visual portrayal of the growth of the United States is to be found in the *Historical Atlas of the United States*, by Clifford L. Lord (New York: Henry Holt and Company, 1944. Pp. 253. \$1.75). Economic, political, military, population, social and intellectual developments can be easily ascertained in these 312 splendid maps.

Rudolph Modley's *A History of the War in Maps, Pictographs, and Words* (Washington, D. C., *Infantry Journal*, 1943. Pp. 177. \$.25) is an interesting summary of the military and economic developments of the past few years.

## OTHER RECENT BOOKS

## INSTITUTIONS AND CULTURE

*Contemporary Scene*

*The Danube Basin and the German Economic Sphere*, by Antonin Basch. (New York: Columbia University Press. 1943. Pp. 293. \$3.50.)

*The Lion Rampant*, by Louis De Jong and Joseph W. F. Stoppleman. (New York: Querido, Incorporated. 1944. Pp. 393. \$3.00.)

*The White Brigade*, by Robert Goffin. (Garden City, New York: Doubleday, Doran and Company. 1944. Pp. 199. \$2.00.)

*A Short History of the Chinese People*, by Luther C. Goodrich. (New York: Harper and Brothers. 1943. Pp. 275. \$2.50.)

*Belgium in Bondage*, by Jan-Albert Goris. (New York: L. B. Fischer Company. 1944. Pp. 259. \$2.75.)

*British Economic Interests in the Far East*, by Edward M. Gull. (New York: Institute of Pacific Relations. 1943. Pp. 279. \$3.00.)

*Netherlands America: the Dutch Territories in the West*, by Philip H. Hiss. (New York: Duell, Sloan and Pearce, Incorporated. 1943. Pp. 238. \$3.50.)

*Indian Crisis: the Background*, by John S. Hogland. (New York: The Macmillan Company. 1944. Pp. 200. \$2.00.)

*British Far Eastern Policy*, by Gilbert E. Hubbard. (New York: Institute of Pacific Relations. 1943. Pp. 104. \$1.25.)

*The Secret of Soviet Strength*, by Hewlett Johnson. (New York: International Publishers. 1943. Pp. 160. \$1.50.)

*The Netherlands*, by Bartholomeus Landheer, editor. (Berkeley: University of California Press. 1944. Pp. 482. \$5.00.)

## POST-WAR DEVELOPMENTS

*How to Think About War and Peace*, by Mortimer J. Adler. (New York: Simon and Schuster. 1944. Pp. 330. \$2.50.)

*Chaos of Peace*, by Leslie Bain. (New York: M. S. Mill Company. 1943. Pp. 150. \$2.00.)

- Road to Peace and Freedom*, by Irving Brant. (Indianapolis: Bobbs-Merrill Company. 1943. Pp. 278. \$2.00.)
- A Preface to Peace*, by Harold Callender. (New York: Alfred A. Knopf. 1944. Pp. 305. \$3.00.)
- Winning the Peace in the Pacific*, by S. R. Chow. (New York: The Macmillan Company. 1944. Pp. 109. \$1.50.)
- Total Peace, What Makes Wars and How to Organize Peace*, by Ely Culbertson. (Garden City, New York: Doubleday, Doran and Company. 1943. Pp. 352. \$2.50.)
- Post-War Youth Employment: a Study of Long-Term Trends*, by Paul T. David. (Washington, D. C.: American Council on Education. 1944. Pp. 182. \$2.00.)
- Empire*, by Louis Fischer. (New York: Duell, Sloane and Pearce, Incorporated. 1943. Pp. 101. \$1.00.)
- Germany Will Try Again*, by Sigred Schultze. (New York: Reynal and Hitchcock, Incorporated. 1944. Pp. 249. \$2.50.)

## NATIONAL WARFARE

- Come Over into Macedonia: the Story of a ten-year adventure in uplifting a war-torn people*, by Harold B. Allen. (New Brunswick, New Jersey: Rutgers University Press. 1943. Pp. 331. \$3.00.)
- The Black Book of Polish Jewry*, by Jacob Apenszlak, editor. (New York: Roy Publishers. 1944. Pp. 359. \$3.00.)
- Europe in Bondage: Reports of the London International Assembly*, by John Armitage, editor. (Forest Hills, New York: Transatlantic Arts. 1944. Pp. 98. \$1.80.)
- Common Cause*, by Giuseppe A. Borgese. (New York: Duell, Sloane and Pearce, Incorporated. 1943. Pp. 454. \$3.50.)

## MILITARY AND NAVAL OPERATIONS, WORLD WAR II

- L'épopée de la France Combattante*, by Raoul Aglion. (New York: French and European Publications. 1943. Pp. 462. \$2.25.)
- My Life with the Enemy*, by Phyllis Argall. (New York: The Macmillan Company. 1943. Pp. 298. \$3.00.)
- Seventy Thousand Miles of War: Being One Man's Odyssey on Many Fronts*, by William W. Chaplin. (New York: D. Appleton-Century Company. 1943. Pp. 296. \$3.00.)
- Behind the Steel Wall: a Swedish Journalist in Berlin, 1941-43*, by Arvid Fredborg. (New York: Viking Press. 1944. Pp. 314. \$3.00.)
- The Road Back to Paris*, by Abbott J. Liebling. (Garden City, New York: Doubleday, Doran and Company. 1944. Pp. 310. \$3.00.)
- Journey into War, War and Diplomacy in North Africa*, by John MacVane. (New York: D. Appleton-Century Company. 1943. Pp. 341. \$3.00.)
- Jean Malaquais' War Diary*, by Jean Malaquais. (Garden City, New York: Doubleday, Doran and Company. 1944. Pp. 246. \$2.75.)
- The End in Africa*, by Alan Moorehead. (New York: Harper and Brothers. 1943. Pp. 279. \$2.75.)
- Far on the Ringing Plains*, by George Rodger. (New York: The Macmillan Company. 1944. Pp. 309. \$3.00.)
- Action This Day: Letters from the Fighting Fronts*, by Archbishop Francis J. Spellman. (New York: Charles Scribner's Sons. 1943. Pp. 269. \$2.75.)

## LAND WARFARE

- Ordeal by Battle*, by Cyril B. Falls. (New York: Oxford University Press. 1944. Pp. 191. \$1.75.)
- They Sent Me to Iceland*, by Jane Goodell. (New York: Ives Washburn, Incorporated. 1943. Pp. 248. \$2.75.)
- Blitzkrieg and Bluff: the Legend of Nazi Invincibility*, by Major Erwin Lessner. (New York: G. P. Putnam's Sons Company. 1943. Pp. 253. \$2.75.)
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- Musket to Machine-Gun*, by Archibald M. Low. (Forest Hills, New York: Transatlantic Arts. 1943. Pp. 117. \$3.25.)
- Modern Warfare*, by General Wladyslaw Skorski. (New York: Roy Publishers. 1943. Pp. 311. \$3.50.)
- He's in the Artillery Now*, by Chard Powers Smith. (New York: Robert M. McBride and Company. 1943. Pp. 256. \$2.50.)
- Russian Cavalcade: a Military Record*, by Albert Parry. (New York: Ives Washburn, Incorporated. 1944. Pp. 334. \$3.50.)
- Wingate's Raiders*, by Charles J. Rolo. (New York: The Viking Press. 1944. Pp. 197. \$2.50.)
- No Quarter*, by Konstantin Simonov. (New York: L. B. Fischer and Company. 1943. Pp. 231. \$2.75.)

## SEA WARFARE

- Boot: a Marine in the Making*, by Corporal Gilbert P. Bailey. (Columbia, South Carolina: Bostick and Thornly. 1943. Pp. 169. \$3.00.)
- Condition Red: Destroyer Action in the South Pacific*, by Commander Frederick J. Bell. (New York: Longmans Green and Company. 1943. Pp. 288. \$3.00.)
- Gunnery Get Glory*, by Lt. Bob Berry and Lloyd Wendt. (Indianapolis: Bobbs-Merrill Company. 1943. Pp. 293. \$2.75.)
- To All Hands: an Amphibious Adventure*, by Lt. John M. Brown. (New York: Whittlesey House, McGraw-Hill. 1943. Pp. 248. \$2.75.)
- Lifeline, the Ships and Men of Our Merchant Marine at War*, by Robert Carse. (New York: W. W. Morrow and Company. 1944. Pp. 189. \$2.75.)
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- A Ship to Remember: the Saga of the Hornet*, by Alexander T. Griffin. (New York: Howell Soskin and Company. 1943. Pp. 288. \$2.50.)
- The Raft Book: Lore of the Sea and Sky*, by Howard Gatty. (New York: George Grady Press. 1943. Pp. 152. \$3.25.)
- Americans Who Have Contributed to the History and Traditions of the United States Merchant Marine*, by Lt. Geo. B. Guelpa, editor. (Kings Point, New York: U. S. Merchant Marine Cadet Corps, Educational Unit. 1943. Pp. 234. \$1.00.)
- The Captain Wears a Cross*, by Captain William A. Maguire. (New York: The Macmillan Company. 1943. Pp. 220. \$2.00.)
- He's in the Sub-Busters Now*, by Alfred D. Rathbone. (New York: Robert M. McBride and Company. 1944. Pp. 224. \$2.50.)
- Why Sea Power Will Win the War*, by Rear Admiral Yates Sterling, Jr. (New York: Frederick Fell. 1944. Pp. 319. \$3.00.)
- The Navy Hunts the CGR 3070*, by Lt. Lawrance Thompson. (Garden City, New York: Doubleday, Doran and Company. 1944. Pp. 158. \$1.75.)



## AIR WARFARE

- Target: Germany; the Army Air Forces Official Story of the Eighth Bomber Command's First Year Over Europe.* (New York: Simon and Schuster. 1943. Pp. 127. \$2.00.)
- Long Were the Nights,* by Hugh B. Cave. (New York: Dodd, Mead and Company. 1944. Pp. 220. \$3.00.)
- The Aviation Annual of 1944,* by Reginald Mc. Cleveland and Frederick P. Graham, editors. (Garden City, New York: Doubleday, Doran and Company. 1943. Pp. 224. \$3.50.)
- The Aircraft Annual, 1944,* by David C. Cocke, editor. (New York: Robert M. McBride and Company. 1943. Pp. 288. \$3.00.)
- Last Flight from Singapore,* by Flight Lieutenant Arthur G. Donahue. (New York: The Macmillan Company. 1943. Pp. 168. \$2.50.)
- With General Chennault: the Story of the Flying Tigers,* by Robert B. Hotz and others. (New York: Coward-McCann. 1943. Pp. 286. \$3.00.)
- The Grim Reapers,* by Stanley Johnston. (New York: E. P. Dutton and Company. 1943. Pp. 221. \$2.75.)
- Carrier Combat,* by Lt. Frederick Mears. (Garden City, New York: Doubleday, Doran and Company. 1944. Pp. 156. \$2.00.)
- American Heroes of the War in the Air,* by Howard L. Mingos. (New York: Lancer Publishers. 1944. Pp. 557. \$10.00.)
- Dilbert: Just an Accident Looking for a Place to Happen,* by Lt. Robert C. Osborn. (New York: Coward-McCann. 1943. No. Pp. \$1.50.)

## NATIONAL FORCES

- The French Struggle for the West Indies, 1665-1713,* by Nellis M. Crouse. (New York: Columbia University Press. 1943. Pp. 324. \$4.00.)
- The Army Reader,* by Lt. Colonel Karl W. Detzer, editor. (Indianapolis: Bobbs-Merrill Company. 1943. Pp. 469. \$4.00.)
- The Unfortified Boundary: a Diary of the First Survey of the Canadian Boundary Line from St. Regis to the Lake of the Woods,* by Major Joseph Delafield. (New York: Brigadier General John R. Delafield, 20 Exchange Place. 1943. Pp. 490. \$7.50.)
- James Bowie, the Life of a Bravo,* by Claude L. Douglas. (Dallas, Texas: Banks Upshaw and Company. 1944. Pp. 216. \$2.00.)
- The Revolutionary Generation, 1763-1790,* by Evarts B. Greene. (New York: The Macmillan Company. 1943. Pp. 504. \$4.00.)
- Kosciuszko in the American Revolution,* by Miccislaus Haiman. (New York: Polish Institute of Arts and Sciences in America. 1943. Pp. 205. \$3.00.)
- Washington and the Murder of Jumonville,* by Gilbert F. Leduc. (Newburyport, Massachusetts: Author. 1943. Pp. 238. \$2.25.)
- The U. S. A. at War: U. S. Camera, 1944,* by Thomas J. Maloney, editor. (New York: Duell, Sloane and Pearce. 1943. Pp. 224. \$4.50.)

## CUSTOMS AND ANTIQUITIES

- Military and Naval Recognition Book,* by Rear Admiral J. W. Bankley. (New York: Van Nostrand. 1943. New 4th edition. Pp. 444. \$2.50.)
- Books of the Sea: an Introduction to Nautical Literature,* by Charles L. Lewis. (Annapolis, Maryland: U. S. Naval Institute. 1943. Pp. 318. \$3.00.)

- Historic Crown Point: the Story of the Forts and of the Village*, by Carroll V. Long-organ. (Boston: Bruce Humphries. 1944. \$1.00.)
- Forts and Firesides of the Mohawk Country*, by John J. Vrooman. (Philadelphia: E. E. Brownell. 1943. Pp. 266. \$10.00.)
- Facsimiles of George Washington's Accounts with the United States in His Own Hand-writing Kept During the Revolutionary War from June 1775 to June 1783*. (New York: Facsimile Publishers. 1944. Pp. 85. \$4.00.)

## RECENT PERIODICAL LITERATURE

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- "The Three Baltic Nations," by F. W. Pick, in *Journal of Central European Affairs*, January 1944, pp. 416-40.
- "Nazification of Science and Research," by Bernard D. Weinryb, in *Journal of Central European Affairs*, January 1944, pp. 373-400.
- "The Conditions of Unconditional Surrender," by Hans Simons, in *Social Research*, November 1943, pp. 399-416.
- "Progress of the Struggle—the Great Dilemma," by Norman Angell, in *Free World*, February 1944, pp. 110-14.
- "The Geopolitics of War: Total War and Geo-Strategy," by Andrew Gyorgy, in *The Journal of Politics*, November 1943, pp. 347-62.
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- The Round Table* (Br.), December 1943, issue complete.
- "Coordinating Production for War," by Shelby Cullom Davis, in *Journal of the American Statistical Journal*, December 1943, pp. 417-24.
- "Trans-Polar Aviation and Jurisdiction over Arctic Airspace," by Elmer Plischke, in *The American Political Science Review*, December 1943, pp. 999-1013.
- "Vauban and Modern Geography," by Jean Gottmann, in *Geographical Review*, January 1944, pp. 120-128.
- "New Concepts of Ivan the Terrible," by Vera Alexandrova, in *Books Abroad*, Autumn 1943, pp. 318-24.
- "British Overseas Trade and Foreign Exchange," by Buford Brandis, in *The Political Science Quarterly*, June 1943, pp. 191-216.
- "Military Government as a Step Toward Self-Rule," by Carl J. Friedrich, in *The Public Opinion Quarterly*, Winter 1943, pp. 527-41.
- "The Naval School of Military Government and Administration," by Schuyler C. Wallace, in *The Annals of the American Academy of Political and Social Science*, January 1944, pp. 29-33.
- "The Food Situation in the European Theatre of Operations," by Major General Robert M. G. Littlejohn, in *The Quartermaster Review*, January-February 1944, pp. 61, 114, 117, 118.

- "West Point Has Grown," by Bowley, class of 1911, in the (USMA) *Assembly*, January 1944, pp. 2-3, 10.
- "Etajima, the Japanese Naval Academy," by Lieutenant Thomas E. Flynn, in *United States Naval Institute Proceedings*, December 1943, pp. 1596-1602.
- "Problems of Empire Defence," by Major C. B. Thorne, in *Empire Review*, December 1943, pp. 26-30.
- "The House of Tata," by the editors of *Fortune*, January 1944, pp. 101-105, 218-28.
- "India and World Order," by Srinivasa Sastri, in *The Indian Review*, January 1944, pp. 3-4.
- "Wartime Local Government in China," by Chien Tuan-sheng, in *Pacific Affairs*, December 1944, pp. 441-60.
- "Argentina: The Thirteen-Year Crisis," by Ysabel Fisk, in *Foreign Affairs*, January 1944, pp. 256-66.
- "The Ideology of Hispanidad," by Bailey W. Diffie, in *The Hispanic-American Historical Review*, August 1943, pp. 457-82.
- "Canadian Problems of Industry, Production and Price Control," by Hugh D. Scully, in *The Annals of the American Academy of Political and Social Science*, January 1944, pp. 68-86.
- "Industry's Transition from War to Peace," by Theodore O. Yatema, in *The Annals of the American Academy of Political and Social Science*, January 1944, pp. 87-97.
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- "Russia at War," by Admiral William H. Standley, in *The American Foreign Service Journal*, December 1943, pp. 617-621, 656.
- "Dolg Christianina Pred Tserkovyu i Rodinoi v Epochu Otechestvennoi Voina," by The Metropolitan Alexis, in the *Zhurnal Moskovskoi Patriarkhii*, September 12, 1943, pp. 9-12.
- "Moscow, Cairo and Teheran," by Sidney B. Fay, in *Current History*, February 1944, pp. 97-103.
- "Russia's Northern Seaway," by E. R. Yarham, in *The Nineteenth Century*, January 1944, pp. 40-6.
- "Free Germany in Moscow," by Alfred Kantorowicz, in *Free World*, February 1944, pp. 149-56.
- "Vse Seeli Molodyozhi na Razgrom Vraga," by N. A. Mikhailov, in *Krasnoarmiyets*, September 1943, pp. 1-3.
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- "France, The Future, and Her Allies," by Sir John Pollock, in *The Quarterly Review*, January 1944, pp. 1-16.
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- "The Five Fatal Mistakes of the Axis," by Albert Carr, *Harper's*, February 1944, pp. 219-23.
- "Germany's Strategic Position," by Major H. A. DeWeerd, in *The Yale Review*, Winter 1944, pp. 331-45.
- "German Militarism: Substitute for Revolution," by Hans Ernest Fried, in *The Political Science Quarterly*, December 1943, pp. 481-513.
- "The Psychological Disarmament of the German People," by Philip Marshall Brown, in *World Affairs*, December 1943, pp. 229-34.
- "Prisoners from the Master Race," by Lieutenant John Mason Brown, in *The Infantry Journal*, December 1943, pp. 39-42.
- "The Slovaks in the Carpathian Basin," by Stephen Borsody, in *The Hungarian Quarterly*, Autumn 1941, pp. 215-27.
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#### LAND AND AIR WARFARE

Probably at no time previous has there been so much valuable writing along military lines. The area of warfare is world-wide. The service journals, following their soldiers over the globe, are now so cramful of fine battle accounts that no attempt has been made to list titles separately. Many articles have no author, ranking as anonymous battle-experience reports from the Army files. The following journals should be given thorough reading:

- Command and General Staff School at Ft. Leavenworth *Military Review*, *The Field Artillery Journal*, *The Infantry Journal*, *The Cavalry Journal*, *Army Ordnance*, *Air Force*, *The Military Engineer*, *The Coast Artillery Journal*, *The Quartermaster Review*, *The (British) Army Quarterly*.
- "Air Power and Victory," by Victor Wallace Germain, in *The Contemporary Review*, January 1944, pp. 30-5.
- "An Air Force in Reserve," by Edwin Colston Shepherd, in *The Aeroplane*, June 11, 1943, pp. 661-2.
- "The Assessment of Aircraft Armament," by Peter G. Mascfield, in *The Aeroplane*, June 11, 1943, pp. 672-7.
- "General Arnold's Airmen," editorial item, in *The Army Officer*, January 1944, pp. 12-13, 32.
- "The Air Training Program," by the editors of *Fortune*, February 1944, pp. 146-52, 174-94.
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- "Dover, Front-Line Town of Britain's Siege," by Harvey Klemmer in *The National Geographic*, January 1944, pp. 105-28.



- "Behind the British Victory in North Africa," by a British officer, in *Foreign Affairs*, January 1944, pp. 318-26.
- "The Story of Singapore," by Sir George Sansom, in *Foreign Affairs*, January 1944, pp. 277-97.
- "The 50 Kilometers of El Alamein," by Robert A. Stein, in *The American Foreign Service Journal*, December 1943, pp. 624-7, 650, 652.
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- "The Atlantic Campaign," by Admiral Sir Herbert Richmond, in *The Fortnightly*, January 1944, pp. 53-5.
- "Air Transport in the Pacific: A British View," by K. M. Beaumont, in *Pacific Affairs*, December 1944, pp. 461-74.
- "Naval Aircraft in Combat," by Lieutenant (j.g.) John B. Goodman, in *U. S. Air Services*, January 1944, pp. 14-5.
- Articles on American naval operations by Fletcher Pratt, in *Harper's*, January and February 1944.
- "The Story of Leros," by Rear Admiral H. G. Thursfield, in *The National Review*, January 1944, pp. 39-45.
- "Flight from Singapore," by Lieutenant H. E. Holwell, in *Yachting*, February 1944, pp. 19-21, 62-6.
- "Victory Sweep," by Davis Newton Lott, in *Our Navy*, February 1, 1944, pp. 4-6.

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- "Medical Service in the North African Campaign," by Major General Albert W. Kenner, in *The Command and General Staff School Military Review*, February 1944, pp. 5-10.
- "The Impervious Bag," by Lieutenant George Liet, in *The Quartermaster Review*, January-February 1944, p. 55.
- "Life Story of the Mosquito," by Graham Fairchild, in *The National Geographic*, February 1944, pp. 180-95.
- "Critique on Motor Maintenance," by Major Carl H. Overby, in *The Quartermaster Review*, January-February 1944, pp. 47-50, 118, 121.
- "Engineer Equipment in the Theatre of Operations," by Major General Eugene Reynolds, in *The Military Engineer*, February 1944, pp. 59-62.

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## NOTES AND ANTIQUITIES

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### BRAZIL'S MODERN ARMY

BY BRIGADIER GENERAL JOHN N. GREELEY

The recent visit of Brazil's War Minister, General Eurico Casper Dutra, to the United States occurred at a time when this South American republic was moving rapidly to develop a powerful, modern, offense-minded army which would take its place alongside the United Nations' forces overseas.

The process of building a highly mobile army for today's mechanized warfare is difficult and the Brazilians have discovered this fact in their recent efforts to develop a competent fighting force. It is a long and herculean undertaking which demands the utmost in organizational detail, in equipping and improvising, in training and teamwork. The Brazilian General Staff, mindful of lessons the Allies have learned on the battlefield, is utilizing many of the latest techniques in preparing Brazilians for combat. Thousands of men called to the colors by Brazil are training now with the most modern equipment and weapons. North American lend-lease assistance has provided much of the heavy material such as large-caliber guns and tanks. Brazil's industries and army arsenals have accounted for munitions and lighter army equipment.

Modernization of the nation's army is entirely a Brazilian effort. It is the Brazilian General Staff which organizes and trains the units and arranges for the delivery and assembly of lend-lease materials. The wartime emphasis now is on the maximum use of Brazil's vast natural resources in equipping the army. Thus, the industries of Sao Paulo, Brazil's Detroit, and Rio de Janeiro are turning out many of the instruments of war, like gas masks and field radio sets, which formerly were imported.

Dr. J. J. Moniz de Aragao, Brazilian Ambassador to London, recently declared that Brazil has 300,000 troops prepared for overseas operations. While no official War Ministry figures on the army's size have been released, it is evident that, based on the 8 to 10 per cent military manpower estimate, Brazil could muster a considerable fighting force from its 43,000,000 population. Obstacles, however, lie in

adequate modern equipment, cantonment areas, experienced instructors, and transportation.

Like all nations which have created a large army in a short time and have abandoned traditional methods for more modern means of warfare, the Brazilians have had to learn the hard way. It is much more difficult, of course, for a country lacking in heavy industries to make the transformation, but the Brazilians have made distinct progress to date. One of the most important factors making for this advance has been the training of Brazilian officers in the United States, where they study the latest war methods and apply those lessons in Brazil.

General Dutra has played a leading role in the streamlining of the Brazilian Army. Since he became War Minister in 1937, the 65-year-old soldier has initiated reforms in both army administration and war tactics. His awareness of new developments in warfare, as borne out by reports from the fighting fronts, and his application of them to Brazil have earned for him a top place among Latin America's military leaders.

In defending Brazil's strategic "bulge" area, Brazilian and American forces have worked together in planned defense of the Americas. One of the big jobs of the Brazilian Army today is protection of the vital northeastern air and naval bases. Brazilian anti-aircraft crews and troops, for example, ring all-important air-fields, guarding against any attempts or attack. Some of the best equipped and best trained Brazilian forces are stationed in that area, awaiting further development in the fight.

Hub of the Brazilian Army's training is Vila Militar, about 15 miles from Rio de Janeiro, where draftees and young officers are instructed in the infantry, artillery, signal corps, and motor-mechanization schools. Newest of these training centers is the motor-mechanization school (Escola de Moto-Mecanizacao), which boasts a wide assortment of tanks, scout cars, jeeps and other up-to-the-minute war machines. Founded five years ago, the school first employed French and Italian equipment, but for the past two years modern American models have been the standard.

Students at this school work with modern equipment. Big, 28-ton General Grant tanks and 12-tonners rumble across the training field, ford creeks, and climb hills near the school as the Brazilians learn the mechanics of operating and servicing the machines. Only American tactics are taught at the school, by Brazilian officers who have studied at the United States Army's great armored force instruction centers at Fort Knox, and Fort Benning. Tank-training at the school lasts from



eight to ten months, after which the tankmen are shifted to permanent field units.

Traveling around some of the nearby army camps now reveals the strong influence of the American military model in Brazil. In general, the Brazilian Army is being organized by its leaders along the lines of the United States Army. Brazil was one of the first non-belligerent nations to receive lend-lease assistance (July 1941), and, wherever suitable production facilities exist, the Brazilians are using American types as models in fabricating their own equipment.

Today Brazil and the United States are joined as wartime allies. Their military, naval and air collaboration is guided by the joint Brazil-United States Defense Commission in Washington. In Rio are American Army officers serving on the Joint Brazil-United States Military Commission, which is an advisory body that makes general recommendations on modernization and technical usage of equipment.

## MILITARY HISTORY IN ONE UNIVERSITY

BY COLONEL EDWARD KIMMEL

### I

Military history has a way of repeating itself. Unfortunately for the educated men and women of the United States, the repetition of the study of this branch of history has not taken place in our colleges and universities. Reasons might be assigned which explain but do not excuse this omission.

It seems to have required the realities of recent war to focus the attention of educators on the neglected field of the history of warfare. The circumstances which brought about a condition of total war on the part of the United States are not of sudden origin; they have their beginnings in the past, even the distant past. A lack of knowledge of the ways of militarism and failure to appreciate historic sequence, one would suppose, must be due to indifference or to an attitude of mind that looks upon a subject ignored as non-existent. Short as have been the intervals of peace between our wars, they seem to have been long enough for our text writers and teachers to forget the lessons which the armed conflicts have taught.

Mere names and dates have no absorbing interest. The tactics of a particular battle or campaign are not important to the thinking of the general student, but a knowledge of military systems and their implications is as essential equipment for the civil servant as for the soldier.

The institutions of higher learning which, prior to 1940, offered a credit course in a direct approach to military history were so few as to

be unique. It is therefore an encouraging sign of the times to note the work being undertaken in a number of universities along this line. Apparently tax supported institutions, being more sensitive and responsive to public criticism, have been slower to initiate military studies. The writings of Professor Edward Mead Earle stand out in leading educators in the right direction. Of special interest in this connection are "National Defense: A Program of Studies"<sup>1</sup>; *Against this Torrent*,<sup>2</sup> and his editorship of *Makers of Modern Strategy*. For the instructor who feels the lack of military experience and background, the text *Outlines of the World's Military History*, prepared by Colonel William A. Mitchell for classes at the Military Academy, provides an excellent basic guide.

The hope is that this enlivened and intelligent interest will continue and expand through the years after the end of the war.

## II

In 1938, when the writer was retired from active military service, he was asked by the President of the University of Washington (Seattle), to prepare and teach a course in military history for students in the History Department. The course was to be a three credit elective for juniors, seniors, and graduate students. It was possible in the short time allotted to cover only a small segment of the field.

Teaching United States military history and policy to ROTC classes had convinced the writer that there was need for an academic approach by way of the University curriculum to a proper consideration of the background of American military philosophy from its beginnings in an early period of English history to the present time. It would be useful also to present, in contrast, the military ideology of the European Continental States. It was believed that a real and intelligent interest might be developed in academic circles if the subject were treated from the standpoint of organization, purpose, and leadership of armed forces rather than from the side of technical studies of battles and campaigns. The response has been gratifying. With this plan in view, a survey was prepared starting at the turn of the New Age when gunpowder changed the character of warfare and a new kind of army appeared on the scene.

The course, designated as History 135 in the University of Washington curriculum, is a history of modern military systems from Gustavus Adolphus to the present. The three basic factors of organization, purpose, and leadership are threads of continuity throughout the entire

<sup>1</sup>*Journal of the American Military Institute*, IV (Winter 1940), 199-208.

<sup>2</sup>New York, 1941.

course. Under organization, personnel, materiel, and training are emphasized. National military policies are fundamental in the statement of purpose, and under the heading of leadership, the influence of the military in civil affairs is given prominent mention.

In outline the course is as follows:

1. Introduction.
2. Gustavus Adolphus of Sweden (1594-1632), the first to create a regular national army, and the originator of a new tactical system.
3. The English Civil Wars under the leadership of Oliver Cromwell (1599-1658).
4. Frederick the Great (1712-1786) and the Prussian military system.
5. The American Revolution (1760-1789). The Colonial Army under the leadership of Washington.
6. The French Revolution (1789) contrasted with the War for American Independence.
7. Napoleon's influence on military doctrines of his time and subsequently (19th century).
8. The military system recommended by Washington for the United States (1783), and the consequences of the failure to heed his advice.
9. The American Civil War (1861-1865). A comparative study of Lincoln and Davis as war presidents, and of military leadership. The "military way" in a republic.
10. The influence of the Spanish-American War (1898) on United States military legislation.
11. The World War (1917-1918). (a) The Selective Service Act and the home front; (b) An American Army and the French front; (c) Post-war legislation.
12. Post-war developments. Type of military systems. (a) Switzerland's citizen army; (b) Combination of a small regular establishment and the great body of citizen soldiers as exemplified by the United States and Great Britain; (c) A nation in arms as a peace time policy. The military system of the totalitarian state.
13. The influence of the military theorists of the 18th and 19th centuries; Saxe (1690-1750); Bourcet (1700-1780); Guibert (1743-1790); Jomini (1779-1869); Clausewitz (1780-1831); Foch (1851-1929).
14. Review of post-war military theory.
15. Summary and conclusion.

In the introductory lecture, a synopsis of the course was stated in part as follows.

Military history in general, or the history of wars and campaigns, would be an overlarge field to cover in a short course of lectures; however, by narrowing the scope to a study of the military systems of the modern era, a fairly complete survey is possible. It is believed that this survey will serve to orient the thinking of the student toward a more intelligent grasp of military questions which should be and are within the cognizance of the educated citizen.

Volumes of biography and history have been written covering all phases of human activity having to do with the conduct of wars, but the record of the growth of a military philosophy down through the modern period and among the different racial groups has been gen-

erally neglected outside of military circles. There is a relationship which exists inherently at a given time, with a given people, between the government and its peacetime military system. Military systems conform to the principles of the governments which they help sustain.

Out of the Dark Age emerged a civic and religious awakening which stirred large numbers of the peoples of the North countries to a sense of individuality. A growing middle class, conscious of its strength, fought with spirit, and championed causes which would redound to the benefit of the people themselves; and they upheld the doctrine that the State existed for the welfare of the citizen. This conception has come down to us through Anglo-Saxon channels. Our military system partakes of it.

In central Europe, the rise of the Prussian State strengthened and fixed on the subject peoples the political philosophy that the individual must subordinate himself to the State; that he must make any sacrifice at any time which the head of the State might demand. His military contribution was of the subservient, unintelligent kind. This philosophy too persists today among the totalitarian States.

New discoveries in science, new inventions in industry, have thrown into the discard old methods and tactics in military procedure the same as in civil pursuits. The effect on both has been to accelerate movement and reduce time and space. For the purpose of this course, we begin about the time gunpowder came into general use in military weapons. This marks the beginning of the modern military era. Radical changes in military tactics became necessary by reason of the introduction of fire-arms.

Concurrently with the advent of new weapons, a remarkable and an unusual political and military leader marched across the European stage. Gustavus Adolphus of Sweden initiated new tactics and organized the first national army. More than that, he was an effective crusader in the larger sense. The general practice of the period was to wage war by means of mercenary troops. Certain nationals, organized into efficient units, monopolized military knowledge and experience and gained great repute. These were hired out by their commanders to any ruler who was able and willing to pay for their services. The prospect of great booty was also an inducement. Armies of friend and foe alike lived off the country and drained its resources, leaving it exhausted. This system was brought to its highest state by Wallenstein, the great mercenary leader. His defeat by Gustavus Adolphus, employing a new military system, caused mercenary armies to disappear, although the use of troops loaned by one monarch to another continued for some time, even as late as the American Revolutionary War.



The active career of Gustavus Adolphus, twenty-one years, ended with his death in battle in 1632.

Next in order, we mention the English Civil Wars under the leadership of Oliver Cromwell. His active career lasted sixteen years, until 1658. These wars, following by only a short interval the military exploits of the great Swedish commander, felt the influence of the Gustavian tactics. The struggle between the English Kings and Parliament was begun without armies. None existed in England at that time. There were armed bands, so-called, but these possessed no coherent organization and had little training and discipline. Cromwell's first task was to organize and lead the Parliamentary army. This he did with unexpected effectiveness because of his native ability and mature experience, because he understood his English middle class, and because he selected the men for his army on the basis of religious zeal and personal interest in the cause. His Puritans were the forerunners of a later New England soldiery.

For our third chapter, we wait for about fifty years and then cross to northern Europe. Here in Prussia, Frederick the Great in 1740 inherited from his father, Frederick William I, a formidable army. With this army, which he strengthened greatly, he made Prussia one of the foremost States in Europe. In this Prussian State an ideology, not new, was crystallized and so firmly established regarding statecraft and subject people, that it has been transmitted through succeeding generations, just as our own Anglo-Saxon tradition has come down to us. It is opposed to the democratic principle, indeed is intolerant of it. Strange as it may seem, Frederick's military system had an important influence on early United States military history through the services of Baron von Steuben.

The War for American Independence (1775-1783) is next in order chronologically. The struggle of a weak Confederation of Colonies with a powerful mother country was successful in winning an independent status. It succeeded in spite of lack of unity among the colonists, in spite of Loyalist opposition; it succeeded only with the help of France. Success in all respects rested directly and indirectly on the faithfulness, perseverance and prestige of Washington. This was the first revolution of its kind in history. An experiment in self-government was inaugurated in the new world. Out of this experiment grew a military system adapted to a democracy, although it was not formulated in its entirety until the World War period; it is a system built on the principle of a citizen soldiery; a small peace-time regular establishment, a national militia, and in war a national army.

In 1789 occurred the French Revolution, notable in its differences

from the American prototype. The French revolt lacked the fundamental political and economic aspirations which inspired the American Revolution. It did not succeed in establishing a stable government because there was not back of it a politically conscious middle class; neither leadership nor populace was ready for self-government. Prepared to step to the front in a military role, after the violence and excesses of the Third State had exhausted French patience, Napoleon was received as one who might compose the State. He did, but returned it to a monarchy *sans* royalty, and he rode with his armies across Europe in a brilliant career which overshadowed the civilized world by its genius and personality.

Leaving the Old World, we then turn our attention to military affairs in the United States. What were Washington's plans and recommendations for a military establishment for the young republic, and what were some of the consequences of failure to heed his advice? What were the lessons of the Mexican War for the military student? The American Civil War, replete with lessons for statesman and soldier alike, was one of the most fruitful of modern history for the open-minded student, yet no soldiers in Europe save the British deemed it worthy of attention. French and German generals, with minds steeped in the Napoleonic tradition, were not receptive to new ideas. The elder von Moltke characterized this war as "two armed mobs chasing each other round the country, from which nothing could be learned." The people drifted into the War between the States utterly unprepared to deal with the military situation. There were no regular troops available to put down opposition to the Government. Armies had to be created. The government of the Confederate States generally used to full advantage the services of the professional military men who went with the South. The North on the other hand left the great majority of its West Point educated men to waste education and talents as leaders of the few small regular army units, and turned the raising and training of the new volunteer armies over to inexperienced men from civil life. It required two years of the very costly trial and error method for President Lincoln to find the commanders capable of leading the superior numbers and resources to a victorious peace.

Coming to the period within the memory of the elder generation, the average American citizen does not know and therefore does not appreciate the importance of the Spanish-American War (1898) as a prelude to our part in the World War. In addition to the consciousness that we had become a world power, there grew out of the Spanish-American War the beginnings of a military organization and of military higher education which by 1917 made possible the building of a

separate and independent American Army in France and thus to influence the outcome of the World War.

When the United States entered the World War, it had a small corps of regular officers who had gained experience in the Spanish-American War and in the occupation and administration of overseas possessions which followed that war; this experience and training was supplemented by schooling in the higher military art at the General Staff School and the Army War College. There was a small but efficient Regular Army, with about half of its combat units garrisoning overseas possessions. The officers were capable of leading an American Army but the war army had to be created. An officer corps of 9,600, Regular Army *and* National Guard, had to grow to 200,000. For the first time in our history, an army for war was raised, officered, and trained by the national government. For the first time, the correct principle for levying a large army in a democracy was enacted into law, the Selective Act. This law operated through local civilian draft boards. Because the machinery had to be set up hurriedly and was without guiding precedent, it was not smooth running at first but it produced the desired results. The time necessary for the reception, organization, equipping and training of a huge army was unduly prolonged because advance preparation was lacking; we barely got ready in time.

Important to us during the post-war period has been the completion of our military structure, very much along the lines originally recommended by Washington. It is designed primarily to meet the needs of a democracy for national defense. It is not a great army in being, but potentially it is the most powerful military force in the world considering its mission, the maintenance of our own national integrity and principles of government.

Finally we propose to examine the military systems of the major powers as they stood at the beginning of the present war. There are three principal types. First is the unique system of the Swiss. Switzerland, although surrounded by powerful militarized nations, has no regular army but relies on a universal military training for her citizen soldiers. Second is a hitherto unknown kind of army, one in which virtually all the members of the State (there being but one governing party) are enlisted in one way or another. It is the politico-military army of the totalitarian state. Last but not least is the middle ground system of the Anglo-Saxon democracies; a small regular establishment as a nucleus and as a first line land defense, backed by a great body of partially trained and part time citizen soldiers.

In a word, it is the purpose of this course of lectures to develop the

thesis, by means of concrete historic examples, that the democratic State has evolved a use of an army in what Dr. Alfred Vagts calls "the military way," a way "limited in scope and confined to one function," viz., the winning of a specific objective as expeditiously as possible, that and no more. In contrast to this is the way of the totalitarian state in which the military arm may and at times does become the master; it may become dominant over the lives of the people (subjects) in all their activities; it may become the end instead of the means; it is the way of "militarism."

## NEW PUBLICATIONS OF THE AMERICAN BATTLE MONUMENTS COMMISSION

BY CAPTAIN VICTOR GONDOS, JR.

The new publications of the American Battle Monuments Commission are thorough jobs of military and historical scholarship. *American Armies and Battlefields in Europe*, issued by the Commission in April 1939, is a concise history and reference work covering the activities of American forces overseas in the years 1917-19. Within the near future the first of a new series of 28 booklets will be released, each of which is a monograph of the operations of an American division on the Western Front. The first six booklets to be published are those on the 4th, 32nd, 26th, 77th, 79th, and 93rd Divisions. Each booklet contains a foreword by the General of the Armies, John J. Pershing, who is also Chairman of the American Battle Monuments Commission. The editorial work was performed by Lieutenant Colonel Henry O. Swindler and his staff. One of the features of the booklets are the operations maps which are reproductions of those used by the fighting divisions on the front. Valuable appendices carry the tables of organization and the tables of casualties of each division. Each volume has its own index. Years of persistent and honest research by qualified officers and historians were devoted to these publications; they provide an excellent background for tactical studies, and present an extensive schedule of source material upon which further studies can be based. Besides the records of the War Department, French, British, and German documents were exhaustively examined. A limited number of copies will be available for distribution to institutions qualified to receive them. Individuals may purchase copies through the Superintendent of Documents, Washington, D. C.



# HARBOR FORCING OPERATIONS

By A. C. DAVIDONIS

Harbor forcing operations, which have played such a prominent and spectacular part in this war, constitute no new departure in naval warfare. The fireship, of ancient and relatively modern times, was on numerous occasions introduced by various belligerents into an enemy's harbor for the purpose of destroying wooden warships. During the War of the American Revolution David Bushnell's *Turtle*, a primitive midget submarine, twice penetrated New York harbor and its operator unsuccessfully attempted to attach an explosive charge to the hull of a British vessel. In October 1804, British units forced the anchorage at Boulogne, and, employing mines designed by Robert Fulton, without success endeavored to break up the invasion fleet concentrated by Napoleon. Earlier that same year Decatur's ketch, *Intrepid*, sailed into Tripoli harbor on a dark night in February, and under the muzzles of the defense batteries, the crew boarded and fired the frigate *Philadelphia* which had by mishap fallen into the corsairs' possession. It was during the American Civil War that the jinx-ridden Confederate submarine, *Hunley*, in August 1864 sank the Union corvette *Housatonic* off Charleston, but itself foundered with all hands for the sixth and final time. Harbor forcing in fact represents a continuation of tactically sound precedents under modern, improved methods of offense and defense. Further on it will be noted that even the craft devised for harbor forcing missions in the present war, novel though some appear, are generally refinements of earlier devices employed for similar tasks with satisfactory results.

The purpose of forcing an enemy harbor is to gain access to the warships or merchantmen lying within, and to damage or sink as many as possible. The strategic and tactical conditions surrounding such missions in the past have been exceedingly diverse, so varied actually that they cannot unerringly be identified and classified into distinct categories. On occasions when an inferior fleet sought refuge in its fortified bases and declined to accept engagement, its adversary overcame the defenses by ingenious methods and attacked the ships. Such was the situation when Japanese midget submarines broke into Sydney harbor, May 31, 1942, and when similar British craft torpedoed the *Tirpitz* in September, 1943. On the other hand, units of an inferior fleet have violated protected harbors of a superior opponent in order to

reduce the disparity in numbers, and act as a tonic for morale. It is, for example, against a strategic background of this sort that Günter Prien's run (October 13, 1939) into Scapa Flow with a U-boat must be viewed. Instances of harbor forcing have been recorded in which the ultimate objective was to render assistance to land operations. This kind of tactical situation existed when Lieutenant Bulkeley stole into Subic Bay on the night of January 19, 1942, with the PT-34 and torpedoed a Japanese light cruiser which had been lobbing six-inch shells into American battery positions on Bataan. These several general conditions under which harbor forcing missions have been executed by no means exhaust the list, but they are the chief ones. Essentially, however, each mission is peculiar to itself, and should be regarded as an individual, unique feat.

The number of penetrations—surface and underwater—of defended bases in this war is astonishing in view of the modern bomber's tactical performance. To the casual observer it may seem that surface or sub-surface forcing is a laboriously slow process which could be readily and easily accomplished from the air. Raiding of harbors by aircraft undoubtedly must be considered as forcing in the third dimension, and this war has witnessed its extensive application. Widely publicized instances immediately come to mind; destruction of British port installations and shipping during the battle of Britain, the British torpedo plane assault on the Italian fleet in Taranto, the Japanese attack on Pearl Harbor, and the German bombing of allied shipping in Bari. The advantages of the airplane for such operations are obvious. Surface barriers like nets and booms are bypassed, and the plane's speed is highly useful in approaching the target as well as taking evasive action subsequent to the bombing run.

However, tactical conditions may not always permit the employment of airplanes. And there are limits upon the effectiveness of air assault. High level attacks leave much to be desired; the numerous British bombings of the *Scharnhorst* at Brest, for example, apparently inflicted no vital damage. Torpedoes have proved more destructive to armored ships than bombs in this war, but to deliver torpedoes by aircraft against an alert opponent's naval units is not an easy task. Now despite any limitations on aircraft attack the fact remains that during the current war air raids on naval bases and harbors have damaged or sunk much more tonnage than surface or underwater harbor penetrations combined. The latter methods seem to have been employed chiefly through necessity or the desire to achieve tactical surprise, but they have produced some remarkable naval exploits, and on occasions scored resounding

successes. Although the details of such achievements probably will not be revealed by the proper authorities until the war is over, it is possible to review a few briefly at the present time on the basis of communiques and other published material.

The first such feat of the war, described by Winston Churchill as a "remarkable exploit of professional skill and daring," occurred on the night of October 13, 1939. A U-boat conned by Kapitänleutnant Günter Prien duplicated Von Hennig's performance in 1914 by running the barricades and defenses of Scapa Flow.<sup>1</sup> Proceeding slightly awash, Prien's submarine emerged into the inner anchorage undetected. Von Hennig, twenty-five years before, had been frustrated because the Grand Fleet was out on an offensive cruise, but fortune favored Prien. Although the British fleet was not there, Prien did sight one target, the dreadnought *Royal Oak*, and at 1:30 a.m. he fired a torpedo which struck the ship near the bow. About ten minutes later Prien discharged his bow tubes, obtaining three hits and possibly four. The rending explosions apparently shattered the bulkheads amidships, for the *Royal Oak* quickly developed a list and settled rapidly. She was the first British capital ship sunk in the war, and with her died 810 men. Prien cruised back to his base unmolested to receive decorations and a heroic build-up by German publicity agents. Loss of the *Royal Oak* was undeniably a blow to the British, and it did affect the strategic picture in the North Sea to the extent that the fleet avoided Scapa Flow until March 1940, by which time reinforced defenses provided secure shelter.

Midget submarines have also put in an appearance as harbor forcing craft. Gossip about Japanese midget submarines had circulated in American naval circles for some time, but it was not until the assault on Pearl Harbor that the diminutive vessels made their public debut. From all reports these midgets, manned by a crew of two, are forty-one feet long, displace forty-five tons on the surface, and have a range of 200 miles. They are armed with two eighteen-inch torpedoes, and an explosive charge in the stern, the purpose of which, if known, has not yet been disclosed. A number, variously estimated, of these toy submarines were present in the harbor on the morning of December 7, 1941, but all were rounded up or sunk before they caused any damage.<sup>2</sup>

<sup>1</sup>See *New York Times*, October 15, 17, 18, 1939. Also *Brassey's Naval Annual*, 1940, and Gilbert Cant, *The War at Sea* (New York, 1942), p. 21 ff.

<sup>2</sup>United States Navy releases indicate that either three or four of the midgets were encountered. A British report places the number at five. Japanese accounts admit the loss of all the special submarines participating in the attack, but at different times have fixed the number at five, seven, and nine. See the *Roberts Report*; *Brassey's Naval Annual*, 1942, p. 72; *Jane's Fighting Ships*, 1942, p. 517; Blake Clark, *Remember Pearl Harbor* (New York, 1943), *passim*; and Gilbert Cant, *America's Navy in World War II* (New York, 1943), p. 44 ff.

Nevertheless, a success of sorts must be acknowledged if for no other reason that the passage of one midget into the harbor on the night of December 6-7, where its commander completed a thorough reconnaissance and slipped out in time presumably to relay his information by radio to the waiting Japanese aircraft carriers.

On at least two other occasions the Japanese naval command put its midget submarines into action. It was on the night of May 31, 1942, that four of them sneaked into Sydney, and not less than two others into Diego Suarez, Madagascar.<sup>3</sup> At Sydney they were detected almost immediately and all sunk, but not before a depot ship was torpedoed. What actually happened at Diego Suarez remains obscure; the Japanese claimed damage to a battleship of the *Queen Elizabeth* class and a cruiser of the *Arethusa* class. The Admiralty denied these assertions, but otherwise furnished no details. It is known, however, that on June 2, two Japanese officers from one of the submarines were discovered in a nearby village and shot after refusing to surrender. The cloud of mystery which surrounds the Diego Suarez affair lends color to the belief that the Japanese midgets inflicted some damage on shipping or installations in the harbor.

On the basis of published information the accomplishments of the Japanese midget submarines to date have not been impressive. The British Admiralty seems to have achieved as much, if not more, with the expenditure of three tiny undersea craft which bear some resemblance to the Japanese midgets. An Admiralty announcement in February 1944 disclosed that three special submarines had under their own power proceeded about a thousand miles the previous September to Alten Fjord, Norway.<sup>4</sup> Each manned by a crew of three (some reports raise the number to five) the submarines passed sixty miles up the Fjord and successfully penetrated the nets and booms which enclosed the German battleship *Tirpitz*. From a pointblank range of 200 yards an unstated number of torpedoes were fired and crippled the warship. Detected by the Germans, two British midgets scuttled themselves, and the crews were taken prisoner; the fate of the third apparently is connected with an extremely heavy explosion heard in the anchorage after the torpedoes had already found their mark. Disastrous contact with an enemy mine may be the explanation. With negligible loss the

<sup>3</sup>Brassey's *Naval Annual*, 1942, p. 22; *Jane's Fighting Ships*, 1942, p. 517. Reports in the summer of 1942 disclosed that midget submarines were active off South Africa as well, but precise information is unobtainable.

<sup>4</sup>*New York Times* and *New York Herald Tribune*, February 23 and 24, 1944. Although reported, the thousand mile cruise seems highly doubtful.



Royal Navy put a formidable enemy unit out of action on the eve of the European invasion.

Torpedo-rigs of diverse contrivance have also been used in harbor forcing operations during this war. The torpedo-rig must be clearly distinguished from the midget submarine. Their tactical function is identical, namely, to overcome or evade protective obstacles barring entrance to a harbor, and, having secured ingress, to bring torpedoes or mines to bear upon the target. The midget submarine, although it can be traced back to the *Turtle* of 1775, is nevertheless primarily a development of the second World War.<sup>5</sup> On the other hand, the torpedo-rig is by comparison relatively recent, for the first automobile torpedo was constructed by Whitehead only in 1868. Yet the *Mignatta*, a torpedo-rig, was employed by the Italian navy in 1918. The most striking difference between the two is that whereas the midget carries its crew inside the hull, the navigators of the torpedo-rig generally lie atop or sit astride the apparatus. Furthermore, the torpedo-rig weighs only between one and two tons, and its mines or torpedoes are an integral, but detachable, part of the hull. Finally, the torpedo-rig is a mongrel craft which merits the epithet "infernal-machine" rather than the euphemism "special device."

In the early 'thirties horror-rumors alleged that Japanese engineers had devised a "human torpedo," operated by a single occupant who could steer it against a target on a suicide mission. Nothing has been heard of such a machine in the Pacific war; it may be that the Japanese failed to recruit the necessary volunteers. The Italians, however, have employed torpedo-rigs on several occasions against British shipping in the Mediterranean, but the Admiralty has shrouded the facts in a cloak of obscurity. For example, Italian naval officers attacked Gibraltar harbor on the night of October 30, 1940, with a "special device" and fired two torpedoes harmlessly.<sup>6</sup> This weapon may not have been a torpedo-rig but one of the *barchini-saltatori* or leaping-boats.<sup>7</sup> Again, at Suda Bay in March 1941, an Italian rig apparently did some damage but official confirmation is lacking.<sup>8</sup> A German modification of the Japanese "human torpedo" has recently come to light. On April 22, 1944, it was reported that a German motor-torpedo boat off Anzio launched a torpedo-rig which advanced into the harbor but was beached

<sup>5</sup>Fulton's *Nautilus* is generally classed as an early type of submarine. It may be argued that it was a primitive torpedo-rig, and with some justification, for the latter is certainly a hybrid.

<sup>6</sup>*Brassey's Naval Annual*, 1941, p. 55.

<sup>7</sup>See below, pp. 11 and 16.

<sup>8</sup>Cant, *The War at Sea*, p. 206.

without causing damage.<sup>9</sup> The captured equipment consists of a conventional torpedo secured beneath a cigar-shaped steel casing. In this upper chamber which is fitted with a glass nose, the navigator lies at full length; the after part of the hull contains propulsion machinery. After sighting on his target the operator is supposed to activate and release the torpedo beneath him, and, with the upper casing, return to his point of departure.

The one conspicuous success of the torpedo-rig in this war took place in January 1943. On an unspecified night that month three British rigs, launched from craft off Palermo, sneaked into the harbor and attached a mine to the underplating of the Italian light cruiser *Ulpio Traiano*. The 8,000-ton transport *Viminale* was similarly served. When a time mechanism detonated the mines, the cruiser quickly sank at its berth, and the transport was damaged so severely that it foundered later while under tow.<sup>10</sup> All six men comprising the three crews were captured in the harbor. The British rig is an electrically driven cylindrical shell with a detachable warhead. Its crew of two sit astride tandem and, clothed in rubber suits equipped with oxygen masks, steer and otherwise control the machine. Upon approaching the target, immersion valves are opened, and the crew-ridden rig cruises submerged to the enemy hull to have its warhead detached and affixed to the ship's plates. The timed explosion occurs after rig and crew have cleared the danger zone. Reports indicate that range is limited, and speed necessarily low. Presumably the Admiralty has disclosed the general nature of this weapon because the gear used at Palermo fell into Italian hands and the German navy now possesses the specifications. This gallant feat of harbor forcing has been described as the first effective employment of "human torpedoes," which is erroneous, for the Italians accomplished more with just one such rig in 1918, although it must be added that the tactical conditions were more favorable to them than to the British at Palermo.

With novel craft the Italian navy in 1941 attempted to force two of the most strongly defended bases in the world, Malta and Gibraltar.<sup>11</sup> The British call these special contrivances "boom-crawlers," and they appear in fact to be adaptations of the *barchini-saltatori* of World War I days. This leaping-boat is another ingenious hybrid contrivance; like the torpedo-rig, it is especially designed for harbor forcing. A cross

<sup>9</sup>*New Haven Evening Register*, April 22, 1944.

<sup>10</sup>*New York Times* and *New York Herald Tribune*, April 18, 1944.

<sup>11</sup>*Brassey's Naval Annual*, 1942, pp. 30-31, 39.

between a motor torpedo boat and land tank, it is sometimes referred to as a naval tank. At least two torpedo tubes are mounted on the craft which is operated by a two-man crew. On the night of July 25, 1941, under cover of diversionary air and motor torpedo boat attacks, eight of these sluggish naval tanks approached the outer harbor barrier at Malta. They were immediately engaged by British aircraft and coastal defenses and all destroyed before penetrating into the harbor. None of the crews survived. About a month later, on the night of September 22, an unknown number of the Italian naval tanks attacked at Gibraltar. Even less has been revealed about this assault than the one on Malta. At least one of the tanks negotiated the barricades and entered the bay, because the British Admiralty admitted the loss, by torpedo, of a coal-  
ing ship. The fate of the Italian craft, and an account of any further damage, must await the opening of Admiralty archives after the war.

Motor torpedo boats have been active harbor forcers in the second World War just as they were twenty-five years ago. What is perhaps the best known instance occurred in Subic Bay on the night of January 19, 1942.<sup>12</sup> During one stage in the Japanese conquest of the Philippines an enemy light cruiser, moored in Port Binanga at the upper end of Subic Bay, was used as a floating battery to engage American artillery on Bataan. The Army command requested naval action, and the task ultimately devolved upon the remnants of MTB Squadron Three. Lieutenants John Bulkeley in the PT-34 and Edward DeLong in PT-31 took on the mission. Shortly after entering the Bay the boats separated according to plan, but DeLong's craft hung itself up on a reef, and, unaware of this, Bulkeley proceeded to Port Binanga through intermittent enemy searchlights and fire. Failing to meet the PT-31 at the rendezvous, Bulkeley continued forward nevertheless and succeeded not only in obtaining a torpedo hit and crippling the cruiser, but also in making good his escape with the PT-34. This raid, as previously stated, was a harbor forcing action in support of land operations.

These harbor forcing episodes of the present war acquire more reality and vividness when projected against the background of similar exploits in the World War of a generation ago. As suggested previously, all the modern harbor penetrating devices employed since 1939, except midget submarines, saw action in the earlier conflict. Since the Adriatic was the scene of more harbor forcing than any other theater, it seems advisable to limit this account to Italian operations.

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<sup>12</sup>William L. White, *They Were Expendable* (New York, 1942), p. 67 ff., and Cant, *America's Navy in World War II*, p. 99 ff.

Having clinched her territorial bargain in the Treaty of London, Italy in 1915 declared common cause with the Allies. The Austro-Hungarian fleet, ranking eighth in the world's naval hierarchy, was Italy's contestant for mastery of the Adriatic. However, even without supporting French and British Mediterranean squadrons, the Italian navy enjoyed definite superiority over its opponent. Consequently, the Austro-Hungarians holed up in their fortified bases, Pola in the north, and Cattaro in the south, punctuating the routine with occasional sweeps to bombard the Italian coast. Perhaps the memory of the drubbing administered to Persano's fleet by Tegetthoff off Lissa in 1866 constituted a psychological hazard, for certainly the Italians did not overexert themselves to bring the Austrian squadrons to battle. They did, however, seek to force the Austrian harbors and torpedo the vessels inside.

Apart from air raids Italian surface craft made seventeen attempts upon Austrian bases during the course of the war.<sup>13</sup> Nine of these were directed against Pola, five against Durazzo, and of the remaining three actions, two occurred at Trieste and the other at Buccari. Of this total three operations only were successful. At Durazzo (June 7, 1916) two MAS boats torpedoed a steamer and escaped; Commander Rizzo in an MAS sank the battleship *Wien* in Trieste by torpedo fire (December 9, 1917), and a torpedo-rig accounted for the dreadnought *Viribus Unitis* and the transport *Wien* at Pola on November 31, 1918.<sup>14</sup> Italian craft did manage to penetrate Austrian harbors more than these three times, but although torpedoes were fired and sometimes struck the target they failed to inflict damage. For example, the MAS-20 under Commander Goiran negotiated the floating barricades at Pola on the night of November 2, 1916, and cruised about the inner channel (Fasana) for three hours before spotting the guardship *Mars*.<sup>15</sup> Two torpedoes struck the *Mars*; both were duds. At Buccari (February 11, 1917) three MAS boats cruised into the harbor, sighted targets and fired six torpedoes. Five were duds, the sixth exploded harmlessly.<sup>16</sup> These missiles were obviously defective. There is a ludicrous but grim irony in the fact that the torpedoes used by the Italian navy were

<sup>13</sup>A. E. Sokol, "Italian Attempts at Harbor Forcing during the Last War," *Naval Institute Proceedings* (January 1942), Vol. 68, No. 1, p. 38, incorrectly states that fourteen attempts were made and that only two were successful.

<sup>14</sup>See *The Italian Navy in the World War, 1915-1918*, published by Office of the Chief of Staff of the Royal Italian Navy (Rome, 1927), p. 22 ff.; C. Manfroni, *Storia della marina italiana durante la guerra mondiale* (Bologna, 1923), p. 254; and Captain Rey di Villarey, "The Italian Navy," *Brassey's Naval Annual*, 1919, p. 57 ff.

<sup>15</sup>*The Italian Navy in the World War, 1915-1918*, p. 58.

<sup>16</sup>Sokol, *op. cit.*, p. 38.



products of the Whitehead Company in Fiume, an Austrian firm. Having no torpedo manufacturing plant of its own, almost 2,000 of these underwater projectiles had been purchased by Italy and stored in naval arsenals before 1915.<sup>17</sup> In Italian hands the expatriate torpedoes apparently fought hard for Austria.

Three types of craft were detailed for harbor forcing tasks by the Italian naval command. Most important of these were the MAS boats, *motoscafi antisommergibili*, introduced into service in May 1916. The MAS, precursor of the present-day motor torpedo boat, was cheaply and quickly constructed, well adapted for shallow draft work along the eastern Adriatic littoral, and as the name implies, originally designed for anti-submarine patrol. About 300 of these boats were in commission at the time of the armistice in 1918. The standard MAS was forty-two feet long, wood built, displaced twelve tons, and the latest models, powered by internal combustion engines, could attain a speed up to thirty knots. For operations requiring stealth the MAS was equipped, in addition to its regular power plant, with an electric drive on a battery circuit which propelled the boat silently at four knots for four hours. Shears fixed in the bow functioned as cutters to hack through defensive cables and netting. Toothed wheels rigged along the bottom fore and aft enabled the MAS to slither, partially out of water, over floating barriers. Each boat was armed with two eighteen-inch torpedo tubes and three machine guns; when on anti-submarine cruise depth charges were placed in the stern. Everything considered, they were craft ingeniously conceived and contrived. On nine different occasions MAS boats overcame all defensive obstacles to enter Austro-Hungarian harbors, but twice only, at Durazzo and Trieste, did their torpedoes inflict damage.

Pola contained the bulk of the Austro-Hungarian fleet, and consequently it rated top priority as an Italian harbor forcing objective. However, since Goiran's penetration (November 2, 1916) in an MAS boat, the defenses at Pola had been increased to five successive barricades of booms, nets, and buoy-floated cables to prohibit entrance, and it seemed unlikely that an MAS boat could surmount hazards of this sort arranged in depth. These impregnable barriers could not be cut with shears; it was necessary to devise a special craft which might crawl over them. To fill the requirement there appeared the *barchini-saltatori*. Brain-child of the Italian general Pruneri, the leaping-boats or naval tanks were constructed by the S. V. A. N. Corporation, and

<sup>17</sup>*The Italian Navy in the World War, 1915-1918*, p. 7.

four were completed by April, 1918. Each was thirty-six feet long, with the bow cut away sharply like a sled. Along either side of the craft ran two overall caterpillar chains to which, at intervals, were attached three rows of pointed steel spikes several inches long. These treads were powered by a thirty horsepower electric motor. When the craft approached a floating obstruction the treads were set in motion, and the spikes dug, gripped, and hauled the bow on to the barricade. The naval tank then waddled over on its spikes and plunged into the water, ready to assault the next obstacle. In clear water a fifteen horsepower electric motor drove a propeller set into a tunnel aft, producing a maximum speed of five knots under optimum conditions. Armed with two eighteen-inch torpedoes, the naval tank was manned by an officer and a crew of three.<sup>18</sup> Some features of this craft resemble the amphibious "alligator" currently active with American armed forces.

A limited range, twenty miles, made it necessary to tow the naval tanks from Venice by MAS boat to the field of operations. During April and the forepart of May, 1918, six unsuccessful attempts were made to force Pola with these novel craft. The long tow from Venice wasted much time, and the night hours generally waned before the naval tanks had properly gone into action at the barricades. To avoid detection the craft were withdrawn when dawn approached, and taken under tow back to base. On one occasion the Italians scuttled two of these leaping-boats on the return cruise from Pola for fear of being spotted by Austrian airplane reconnaissance. It was on the night of May 14, 1918, that the seventh and final effort took place. The naval tank *Grillo* under Commander Pellegrini was conveyed to Pola in the customary manner, and cautiously proceeded to the first floating barricade. As the *Grillo's* bow nuzzled the obstruction Austrian searchlights cut through the night and focused upon the craft. Unable to escape, Pellegrini gallantly pushed forward through a rain of concentrated enemy fire. Apparently the Austrians served their guns with more enthusiasm than skill, because the *Grillo* negotiated four barriers and neared the fifth without serious injury. There, only 300 yards distant from the belching rifles of the battleship *Radetzky*, Pellegrini decided to fire his torpedoes and scuttle his boat. According to Italian accounts he accomplished both; the Austrians maintain that an accurate shell relieved Pellegrini of the scuttling job. At any rate the *Grillo* sank and its crew was captured. Later raised by the Austrians, the

<sup>18</sup>For additional specifications see Captain Rey di Villarey, "The Italian Navy," *Brassey's Naval Annual*, 1919, p. 59 ff. A photograph of the naval tank can be found in *The Italian Navy in the World War, 1915-1918*, facing page 38.

*Grillo* served as a model for a reproduction fabricated by the Austrians, but the armistice terminated these activities. In this way ended the harbor forcing attempts of the naval tanks in the first World War.

Concurrent with the unproductive naval tank expeditions to Pola the Italians conducted experiments with a torpedo-rig at Venice. If the tanks failed to crawl into the Austrian base—as they did—the unique torpedo-rig perhaps could be pushed under or hauled over the barriers to reach the Austrian warships. Engineering-Commander Rossetti invented this new device which he named the *Mignatta*, and Surgeon-Lieutenant Paolucci associated himself with the experimentation. The *Mignatta* was an oversize, specially designed torpedo casing. Its nose construction encompassed two buoyant, detachable mines, each containing 350 pounds of trotyl. In its after part Rossetti placed a small turbine which was activated by a stream of air passing through a reducing valve from a flask under 3,075 pounds' pressure, sufficient to drive the *Mignatta* several hours at low speed. As in a conventional torpedo, the turbine powered twin screws at the stern. Water ballast tanks fore and aft controlled by manual valves regulated the rig's buoyancy not unlike a submarine.<sup>19</sup> The two navigators, garbed in rubberized suits, could sit astride this contraption and steer it with their feet, or lie upon it, in which case they steered with their hands.

All preparations completed in November 1918, the *Mignatta* was transported off Pola on the evening of the 31st, and towed by an MAS boat to within 1,000 yards of the first barricade. Rossetti and Paolucci at 10:00 p.m. slipped into the water, swam to their rig, clambered atop it and set off.<sup>20</sup> For a short time the MAS crew could see the special helmets—bottle-shaped steel with straw camouflage to simulate empty Chianti wine flasks—bob about in the mist and darkness. Then the night swallowed the two Italian officers. After the most incredible difficulties Rossetti and Paolucci managed, alternately swimming and riding, to shove the *Mignatta* under some obstructions, and literally lift it over others. In this laborious fashion they passed five barriers, and thought they had reached clear water at last. However, unknown to Italian naval intelligence, the Austrians had reinforced their harbor

<sup>19</sup>For further mechanical details see Captain Rey di Villarey, *op. cit.*, pp. 61, 62.

<sup>20</sup>The *Mignatta* episode has been collated from the following sources: F. Speranza (ed.), *Diary of Gino Speranza, Italy, 1915-1919* (New York, 1941), II, 222 ff., contains a personal account by Paolucci. L. S. Palen, "Davids of the Sea," *Naval Institute Proceedings* (December, 1928), Vol. 54, No. 12, p. 1035 ff. publishes extracts from Paolucci's official report. Miscellaneous documents in the *Naval Records*, Office of Naval Records and Library, Washington, D. C., help fill in the gaps. The account in H. Newbalt and J. Corbett, *Naval Operations* (London, 1931), V, 357 ff., is inaccurate. The same is true of Sokol, *op. cit.*, who, for example, places the action on November 2, 1918.

defenses with two additional barricades, but the *Mignatta's* team negotiated these also. It was then 3:00 a.m., November 1. Half the air pressure had been expended, time then to turn back to the waiting MAS boat if they hoped ever to return. Perhaps the thought of the back-breaking job involved in retracing their route proved a factor in the decision which steeled them to continue onward; at any rate, they did.

Before them, moored in majestic rows, lay the Austro-Hungarian fleet, riding lights obscured now and then by occasional snow flurries. The Italians' targets were two of Austria's three remaining dreadnoughts,<sup>21</sup> especially the 21,000-ton flagship *Viribus Unitis*. Unfortunately the *Unitis* lay moored at the far end of the line, therefore the *Mignatta* proceeded to traverse the length of the anchorage to reach its objective. During this dangerous cruise the rear immersion valve accidentally opened, and only the noise of Rossetti's drowning gurgles warned Paolucci to turn in sufficient time to rescue the craft and his commanding officer. Shaken by this experience, they arrived off the bow of the *Unitis* at quarter after four. Setting one of the mines to detonate at 6:30, Rossetti detached it from the *Mignatta*, and, pushing the explosive ahead of him, swam to the dreadnought while Paolucci struggled to maintain the *Mignatta* in position against a vicious rip tide. About 5:20 the alarm bell on the *Unitis* broke out, and five minutes later Rossetti rejoined the worried Paolucci. Then a searchlight on the battleship's fighting top flashed and began to poke a beam about in the rapidly approaching dawn. It soon settled on Rossetti and Paolucci. They had sworn a round Italian oath to scuttle the *Mignatta* if detected by the Austrians, and they now energetically proceeded to execute it, nor did the launch putting out from the *Unitis* have any other effect but to hurry them. While Rossetti opened the immersion valves, Paolucci activated the second mine and started the motor, so that when the launch picked up the two Italians the *Mignatta* was already careening through the water in a singing condition, unseen and unsuspected by the Austrians.

It was almost six in the morning when Rossetti and Paolucci stepped across the deck of the *Unitis* to be interrogated by Captain Voukovic. They tried at first to dissimulate by identifying themselves as Italian aviators dropped from an airplane, but no sooner did Voukhovic sight the weird helmets than the ruse became worthless. Meanwhile, the two Italians noticed "Jugoslavia" printed on the sailors' caps and the

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<sup>21</sup>The fourth, *Szent Istvan*, had been torpedoed and sunk by Commander Rizzo in an MAS boat off Premuda, June 10, 1918.



Croatian rather than Austro-Hungarian flag flying from the ship. Captain Voukovic relieved their curiosity by explaining that on the preceding day Emperor Charles had transferred the fleet and naval arsenals to the Yugoslav national committee, and that the navy would now fight with Italy and the allies against Germany. It was forcibly brought home to Rossetti and Paolucci that they had mined a friendly battleship, but they could not break orders and disclose the presence of the explosive attached to the hull of the *Unitis*. They did, however, earnestly suggest to the captain that something disastrous would momentarily occur to his ship, and he, suspecting that the Italians had smuggled bombs into the hold, ordered the *Unitis* abandoned.

When the members of the crew began leaping overboard into the water, the Italians requested and obtained permission to save themselves. They lost no time in emulating the crew, but Paolucci, who had cut away his buoyant rubber suit, forgot about his headgear and almost drowned before Rossetti jerked the heavy steel helmet from his head. After swimming a short distance, a boat picked them up, and returned them to the doomed warship. Five minutes before the explosion was due they were forced up the gangway beneath which, unknown to their captors, the mine mechanism ticked. Paolucci and Rossetti hastened aft, as well they might, and while irate sailors were threatening to lock them up in the ship's hold the mine detonated. Everybody except the captain, captors and captives alike, dashed overside after the first moment of stunned surprise. The two Italian officers, again taken aboard by a launch, witnessed the dreadnought heel rapidly, list so heavily that the dozen twelve-inch guns tore from their turrets and plunged to the bottom just before the *Unitis* turned turtle. After some medical treatment and a half-promise of execution, Rossetti and Paolucci were hauled off to jail.

Meantime the *Mignatta* had apparently (and entirely fortuitously) come to rest beneath the transport *Wien*, headquarters ship of German submarine crews in the Adriatic. Not long after the *Viribus Unitis* went down, the *Mignatta's* mine exploded and sank the 7,300-ton *Wien*. This particular episode is best described as "one of those things," said with a certain amount of shoulder shrugging.

Two days later, on November 3, the Austrian armistice was signed, and on the fifth, an Italian naval squadron under Admiral Cagni cruised into Pola. Rossetti and Paolucci were promptly rescued and transported home to receive gold medals.

In connection with this Italian exploit it should be noted that the warship sunk at Pola was not Austrian. A mutiny of the sailors on

October 28 was followed two days later by an imperial decree transferring the Austrian navy to the Yugoslav national committee, and on the 31st all formalities were concluded.<sup>22</sup> In fact, the *Viribus Unitis* had been rechristened *Jugoslavia*, and was the flagship, not of the Austrian, but of the Yugoslav fleet. Now an extensive bibulous celebration on the part of the crews, with consequent relaxation of discipline and vigilance, attended the protocol which turned over the fleet to the Yugoslavs. The Chianti flask headgear worn by the two Italian officers was, under the circumstances, about the best camouflage that could have been devised. The point of the matter, however, is that for the Yugoslav sailors the war was over, and the customary defensive precautions were virtually omitted on the night of October 31. This relaxation is underscored by an event which occurred in the harbor. An Austro-German sailor on watch actually spotted Rossetti and Paolucci and reported the observation to his superior, who allowed the matter to rest without action. Tactical conditions, therefore, entirely favored the Italian attack. Another aspect, one which has hitherto received no attention, lends itself to a sinister interpretation of the Pola assault. During the afternoon of October 31, Yugoslav authorities broadcast a message to Venice informing the Italians that the Austrian fleet belonged to the Yugoslavs, and invited the Italians to send a vessel to Pola immediately.<sup>23</sup> The naval command nevertheless did not cancel the *Mignatta* expedition; the ship sent by the Italians was not for purposes of negotiation, but of destruction.

This account of harbor forcing in the Adriatic may serve to illustrate the extremely hazardous nature of such operations, and suggest the type of detail hitherto suppressed by allied and enemy naval commands in this war. Finally, a review of surface harbor forcing actions in the wars of 1914 and 1939 seems to indicate that however brilliantly conceived and executed they constitute little more than harassing assaults with no profound or enduring influence on naval strategy.

<sup>22</sup>E. von Glaise-Horstenau, *The Collapse of the Austro-Hungarian Empire* (London, 1930), p. 273 ff.

<sup>23</sup>*Naval Records*, File VA, U. S. Naval Attache, Rome, to Naval Intelligence, November 3, 1918.

# THE PLAN FOR AN OFFICIAL HISTORY OF AUSTRALIA'S PART IN THE WAR

BY GAVIN LONG

The official history of Australia's part in the war of 1914-18, the final volume of which appeared in 1942, provided a starting point for the planning of an Australian history of the new war. The last history is in twelve volumes each of 400 to 1,000 pages. In ten of these volumes it tells the story of the Australian army, navy, and air force (or flying corps as it was then called) in the last war, and, in the eleventh volume, describes what happened on the Australian home front. A twelfth volume consists entirely of reproduction of photographs.

The Official Historian, Dr. Charles E. W. Bean, who had served with the Australian Army throughout the war as official war correspondent wrote, in six volumes, the story of the Australian infantry divisions in Egypt, Gallipoli and France. All but one of the six writers who contributed volumes to the history were journalists or men who had combined journalism with academic work. None of them was a professional member of a fighting service, and all did their work free of political or military control or censorship, except for a provision that the Navy reserved the right to prevent the publication of certain technical matters, and each volume was read before printing by the Minister for Defence who could ask the Editor to alter or to discuss any passage which he considered to need amendment.

In February 1943, the Australian Federal Government appointed the writer of this to be General Editor of an official history of Australia's part in the present war, and instructed him to prepare a plan for the history and submit the names of proposed writers of the several volumes.

The scheme, which was approved by the War Cabinet in July 1943, provided, tentatively, for a history in 14 volumes each of about 500 pages. It was decided that one volume would deal with general defence policy, four with army campaigns, two with the navy, three with the air force and four with the home front. It was also decided that there should be a separate medical history, and a volume consisting purely of photographs.

So far as the military history is concerned the provisional scheme provides for one volume covering the First Libyan campaign, Greece, Crete and Syria (about seven months of fighting involving two Australian divisions), a second volume on the Siege of Tobruk plus the El

Alamein campaign, a third on the war against Japan up to July 1942, and a fourth continuing the story from that point and ending, perhaps, a year later.

Possibly the first of two volumes on the history of the Australian Navy will end with the entry of Japan into the war, and a second volume will deal with the war against Japan.

It is planned tentatively that the story of the Australian Air Force will be told in three volumes, one dealing with the war in Europe and the Mediterranean and the other two with training and with the war against Japan.

In the provisional plan for the history, its purpose was stated to be:

- a. to crystallise the facts once and for all for any subsequent use
- b. to establish a story that will carry conviction in other countries
- c. to satisfy the men who took part that the history is an adequate memorial of their efforts and sacrifices.

Planning is vain if it does not include measures for obtaining the materials with which to convert the plan into a reality. At the end of the last war, an Australian war records section which had been in existence since the middle of 1917 had amassed a big collection of war diaries, reports and other records concerning the battles in which Australians had fought, and Dr. Bean, in four years of service, had filled more than 300 note-books with closely written notes made on or near the battlefields.

Such a collection of field notes was lacking, however, in February 1943, when the present editor was appointed, though a military history section had been established in the Middle East in 1941, and, both there and in Australia, had carefully collected and organised unit war diaries and other documents of historical value. In February 1943, the Navy had no historical records section so called, though wise measures had been taken to preserve and organize documents of historical value. In the Air Force, the staff allotted to the work of keeping historical records was, in the writer's opinion, most inadequate, and it was essential that a satisfactory historical records section be set up.

Today, as an integral part of the Army, the military history section continues its work, which includes, incidentally, the control of a corps of official photographers and 14 official artists. The artists include some of the best of the younger painters and they are working in New Guinea, India, the Middle East, England, and at sea. The section's historical records consist, for the most part, of the war diaries of formations and units.



In theory the war diary, as ordained by Field Service Regulations, ensures a full and accurate record of the experiences of every unit or formation, but in practice this is not always achieved. By 1943, Australians had fought in four continents against four enemies—Italians in Africa, Germans in Europe, Vichy French in Asia, Japanese in the Indies and the Australian islands. They had fought in desert and in mountain, in snow and in tropical rain, in victory and defeat. For some of their story there were no diaries at all, and for some of it the diaries were terse summaries written weeks after the strenuous events they described, or else were collections of penny-notebooks, the covers and edges stained with New Guinea mud and the pages filled with barely legible pencil notes.

For example, comparatively few documents were saved from Greece or Crete. As a rule, the war diaries were reconstructed afterwards, if enough survivors remained to make it possible to tell the skeleton of the story. Thus, some of the history of the early Middle East campaigns, apart from such outlines of operations as appear in divisional and corps reports, can be recorded only by collecting notes from the survivors. Every battalion of the 8th Australian Division was lost, six of them at Singapore and one each in Timor, Amboina and New Britain. Little of their story can be written until the prisoners return. The Editor has spent several months gathering such recollections, in camps in northern Australia and in the field in New Guinea with results that have been encouraging, but at the same time have brought a very definite appreciation of the great amount of work that still remains to be done.

The officers of the naval historical records section are, in their own sphere, following a policy similar to that which the Editor is employing in relation to the army. Each officer of the section spends approximately half his time at naval headquarters in Melbourne organising the formal records and doing other administrative work, and the other half at sea making notes and gathering in the recollections of the veterans.

The task of the officers of the air force's historical records section is going to be perhaps the most arduous of all. The men of the Australian Air Force have been scattered among every front, including Russia. Many thousands are serving not in Australian units but in ones and twos among hundreds of British squadrons. At the same time there are purely Australian squadrons which have had years—more than four years in one instance—of continuous active service. The work of collecting an adequate record of this scattered force, and particularly of these battered squadrons which held the pass for long months in the

south-west Pacific until the weight of the United States air forces began to be felt, is going to test the energy and ingenuity of the officers, mostly former journalists now serving in the R.A.A.F., to whom the task has been given.

Because so much back work has to be caught up by the air force historical section and the writers of the history will be so dependent on the special efforts made by the section, the policy has been adopted of appointing the men who will (it is hoped) write the air force history to posts in the historical records section for the duration of the war. The plan is that, after the war, these writers will leave the R.A.A.F. and begin to write the history for which they themselves have collected the data.

The aim, in relation to each of the three fighting services, is to build up a collection of field notes compiled by experienced observers to supplement existing reports of operations, and to make it easier, later on, for the writers of the history to dispel those legends which always spring up and flourish in war, watered by man's sense of the dramatic and his desire to believe that what should have happened did actually occur. It is hoped that by means of these field notes and the other available sources, it will be possible for the new history, like the old one—"Bean's A.I.F."—to show what war was like to the man in the front line, to treat the story not only as a matter of strategy and tactics but of human experience.

The final writing of the history has not yet been begun, nor is it possible, in my opinion, to complete the story of even a single campaign while the war continues. I have already emphasized the need for information from men who are now prisoners. In addition, Australian troops have never fought entirely alone, but always beside or supported by troops or air forces from New Zealand, the United Kingdom, the United States, Poland, and so on. Experience after the last war proved that it is essential for the historian to obtain copies of the records of Allied units on the flanks, and of Allied higher formations, if any, under which served the force whose exploits he has to describe. To obtain such copies takes time; it is likely also that an ally would not wish its reports and unit diaries to be used as source material for any work to be published while the war was still in progress.

A final and authoritative history of some campaigns in which Australians have fought cannot be written without more knowledge of the enemy's story than we have at present. This applies particularly to the conquest of Crete and the campaign in Malaya. An official account of these campaigns which could tell only what happened on our side

of the hill would not satisfy either the men who took part or the general reader.

Finally, censorship in wartime is essential. Much of the very material which the soldier and the citizen look forward to reading in a final, authoritative history cannot be published until the war is over.

The policy adopted by the Australian Government is that the writers of the several volumes of the history will work under the guidance of the General Editor and with the co-operation of the Australian War Memorial. The War Memorial, erected at Canberra to commemorate the men who fell in the last war, contains a war museum, and also a library, which houses the records of the fighting services in the last and will house similar records for this war. This library contains not only the formal archives of the last war but a great quantity of other source material, including the official historian's notes, soldiers' diaries, personal narratives, letters, and all available photographs and cinema films dealing with Australians in the last war. Already similar material is being accumulated concerning the present war.

It has been decided that the writers of the several volumes of the history will receive a fee for each volume, except that the General Editor and the Editor of the medical history, whose work cannot be assessed in terms of volumes, will be paid a salary.

All the writers have not yet been chosen but it is hoped that none of them will come to his task entirely a stranger to the subject he has to write about. The naval and air force historians will have spent the war period either on general service in those forces or specifically in the historical records section. It is expected that the writers of the volumes dealing with land campaigns will be men who have had first-hand knowledge of their subjects, either as soldiers or as war correspondents. A proportion of this work will be done by the General Editor of the history who had experience in France, the Middle East and New Guinea as a war correspondent, and has spent some time in New Guinea since his appointment to take charge of the historical project.

It will be seen that the Australian war history is not an entirely new venture but is founded on a tradition established during the planning and the writing of the last history.

The distinctive qualities of this tradition are:

1. Its effort to tell the story from the point of view of the man behind the gun as well as the commander and staff.
2. The consequent large reliance on field notes made by competent observers and on the personal narratives of eye-witnesses

as a supplement to the official documents.

3. The choice of lay writers with wartime service experience or experience as war correspondents to write the volumes.
4. The freedom from censorship, subject to the limitations described above.

The last history employed a number of devices which, so far as this writer knows, were entirely new. For example, large numbers of small maps inset in the page were used in preference to larger folding maps. Each name mentioned in the history whether of general or private, was accompanied by a footnote in small type giving his place and date of birth, address, occupation, and unit.

The extent to which this tradition and these methods are followed in the new history will not, in some cases cannot, be decided until the actual writing of the history begins.

One other point should be emphasised. The success of the history of Australian forces will largely depend on the co-operation of Allied historical sections. After the last war, the Australian official historian, with the help of his assistants, obtained copies of relevant war records from New Zealand, Britain, Canada, the United States and France, and obtained substantial extracts from German and Turkish records. He in his turn gave substantial assistance to historians in other countries whose territory overlapped his own. It is my hope that similar exchanges can be arranged during and after the present war.



# ECLIPSE OF THE TANK

By FRED K. VIGMAN

The tank, the *deus ex machina* of World War II, has been tried, shot at, and conquered. The machine that was to outmode the gun, crash through the stalemate of positional warfare, and roll on juggernaut-like and unopposed, has met its nemesis. The Nazis, who had put many of their eggs in the tank basket, and the military "experts" at home who had warmed to the eggs, have had them broken on them.

The too-easy German military successes during the first two years of the war, furnishing the basis of the reputed invincibility of the Wehrmacht, inflamed the imagination of the Allied public and the "experts." This was a new and terrifyingly different war, and not only was there nothing to learn from World War I but most weapons developed hitherto were outdated by the Nazis, who had perfected the crushing weapon in their tank and ancillary armored forces.

This Sunday supplement viewpoint nourished the extremist power weapon concept, a concept reflected in best sellers and in newspaper dope pieces by military "experts" and commentators.

If the popular concept of weapon power was along such lines, no little responsibility for this belongs to those of the military who in the past held such particularistic views. The case of Major General J. F. C. Fuller, one of the leading exponents of the mechanization of armies and of the predominant role of the tank, is in point. Gen. Fuller was impressed with the maiden use of British tanks on the Western Front in 1918, and drew from it a series of conclusions that represented, at the time, the *avant garde* of military theory on the new weapon, the tank, and its corollary, mechanization. As he saw it, the chief tactical problem of World War I was to break the stalemate of trench warfare and to move from positional to motional warfare. In order to indicate, isolate and sharply limn the importance of the tank, Fuller denied the efficacy of artillery, which until then was presumed to possess the greatest amount and concentration of fire power, the desideratum in attaining fire superiority. Writing of British participation in War I he said in *Army Ordnance*, January-February 1931,

In spite of shell-power and motorization, the great artillery battles were a grim and costly failure. The answer to the tactical stalemate had been sought in tonnage of projectiles, but its true answer was to be found in surprise and the maintenance of forward movement.

The problem then, he held, resolved itself into that of "not to discover a new or more powerful offensive weapon, but to deny power to the most formidable of existing ones—the rifle and machine gun bul-

let . . .” The answer was the invention of a new armor bearing vehicle. “In the British Army this machine was called the ‘tank,’ a machine which combined within itself the three tactical elements, namely, protection, movement and offensive power in an intimate relationship. . . . The introduction of the tank was the necessary consequence of the stalemate, and as steam-power produced the armored battleship, so now did petrol-power produce the armored fighting vehicle.”

He termed the tank battles at Cambrai, November 20, 1917, and at Amiens, August 8, 1918, as “revolutionary” and referred to the Germans for testimony as to their effectiveness.

According to Marshal von Hindenburg, August 8 was the “black day” of the German Army, and according to General von Zuehl, “We were not defeated by the genius of General Foch, but by General Tank.”

The tank, Fuller contended, would again restore warfare to its motional phase and by inference cut down on costly positional warfare involving great masses of infantry and artillery. This inference he elaborated when he asserted that armies could now be organized around groups of specialized tank and armored force specialists rather than the conventional infantry mass. The overall result for the nation adopting mechanization and tankization, he went on, would be a great savings in war expenditures, economy in transport and speed in striking power and hence tactical superiority on the battlefield.

## II

“The steely claws of the tank spearhead” was the awestruck term often used by military reporters and commentators to describe the quick moving victories of Nazi arms through 1941. The tank indeed had become the juggernaut that threatened to make all other weapons obsolete. As the Nazis struck one country after another, the juggernaut rolled on. No force on earth seemed able to stop it and when on that fatal day—June 22, 1941—the Wehrmacht’s tanks rolled over the Soviet borders, the Allied world and its military reporters expected the monsters to pierce Soviet vitals in six weeks at the outside.

The prime role of the tank in the Nazi blitz was recognized. As Max Werner later noted in *The Great Offensive*, “It was German tank operations against the Red Army that were most effective and successful. In all German operations the tank was the bearer of the offensive.”

Stalin, in his public speeches the first 18 months of the invasion, attributed the continual Red Army retirements and technical defeats to lack of sufficient tank and plane power and to Nazi supremacy with this combination.

But the Red Army was coping with the problem of Nazi tank superiority in a different direction. After the first year and a number of limited Soviet victories, Russian communiques made frequent reference to artillery as the "god of battle" and indicated that reliance was being placed on antitank guns and general artillery as the key antitank weapon. The use of artillery to meet, hold and defeat the tank was vindicated in the battle of Moscow. What was perhaps the greatest massing of tank and auxiliary armored forces converged on Moscow during December 1941. The Red Army could not hope to match it by a similar force, and relied heavily on artillery, in which arm the Nazis had marked inferiority. The result was, as Werner noted, that the Nazi tank armies "were paralyzed and were literally turned into scrap."

The increased ability of the Red Army to withstand and hurl back the Germans in 1942 was due in great measure to the development of more efficient artillery, its greater mobility and by the evolution of new and improved pieces, a number specifically designed to destroy the tank.

In the Soviet Stalingrad offensive which was started November 19, 1942, and organized by General of Artillery, later Marshal, Voronov, the greater use of improved artillery was evident.

### III

British battle experience in the Near East theater caused a modification of the use of the tank in favor of artillery, even though it seemed that the Nazi tank-and-Stuka team had accounted for the earlier defeats of the Imperial desert armies. The Imperial tank disaster of June 13, 1942, in which a brigade was ambushed and thoroughly enveloped by German 88s, caused a sharp reaction against the tank-as-spearhead tactics. The marked superiority of open-field guns over the tank with a limited traverse arc of its armament seemed to be a clinching argument.

General Montgomery's great counter-attack which was to shatter Rommel's Afrika Corps was characterized by exceptional heavy artillery barrages (in the manner of World War I) and the use of the tank as a follow-up rather than a break-through weapon.

Making allowance for newspaper headline flamboyancy, the story of Rommel's rout was summed up in a story by a United Press correspondent who quoted an Imperial officer who told him what it would take to stop Rommel when in the retreat from the Gazala line July 1942.

The weapon which we need out here is a self-propelling antitank gun. It must have speed so that it can dash in and fight the enemy panzers and then dash away again.

It is the obvious successor to the tank itself. *The gun is more important in modern war than the tank.*

What is important to note in this statement is the sharp reorientation toward artillery as a mainstay rather than the tank at the highest point in the crisis of Imperial forces in the Near East. With the change of command went a change of weapon tactics, and Montgomery began to be identified with the more intensive use of artillery. The sweeping victories in the North African campaign encouraged the artilleryists to look disdainfully upon the tank as an out-classed weapon and one now relegated to an auxiliary role hereafter. This was indicated in a news story in *The New York Times* on April 21, 1943

In ground attacks, the Royal Artillery considers that guns are already so far ahead of tanks that no new armored vehicle can be satisfactorily developed during this war that could regain superiority. . . . The artillery piece, they say, has completely gained the whip-hand over the tank. The armored vehicle is helpless in the face of a properly handled gun. This superiority has come to stay. . . . The tank must await an infantry break-through to get an enemy soft spot, they say, and is no longer the assault weapon that it was designed to be in the first World War and a role that it filled early in this one.

#### IV

Soviet and British experiences with the tank were not lost on President Roosevelt's military advisers, and the former emphasis on tanks was modified in favor of artillery. The President in his message to the Congress for 1943 stated:

In tank production we revised our schedule—and for good and sufficient reasons. As a result of hard experience in battle, we have diverted a portion of our tank-producing capacity to a stepped-up production of new, deadly field weapons, especially self-propelled artillery.

Nearly a year later Charles E. Wilson, executive vice chairman of the War Production Board, revealed that the production schedule of tanks in 1943 was only 13 per cent higher than 1942, and the 1944 program 25 per cent under 1942.

#### V

While the tank was being outmatched and smashed by artillery, tank particularists clung to their tank-as-spearhead concepts and have yet to admit the growing obsolescence of the tank as a key weapon.

General Fuller in his enthusiasm for the tank betrayed a fundamental theoretical weakness in failing to apply the dynamics of his own "Constant Tactical Factor" which he defined as follows:

Every improvement in weapon power has aimed at lessening terror and danger on one side by increasing them on the other; consequently there is always the evolutionary pendulum of weapon-power, slowly or rapidly swinging from the offensive to the pro-



pective and back again in harmony with the speed of civil progress; each swing in a measure degree eliminating danger.

Why General Fuller failed to see the "evolutionary pendulum" would inevitably develop a powerful antitank swing can only be explained by the theoretical myopia that particularism generates and fails to outgrow.

The pendulum swing was seemingly slow at first. There was far too much eagerness in putting forth the claims of the tank and the *panzerdivisionen* spearhead, especially in view of early Nazi successes.

Antitank development in terms of systematic techniques, special guns and the like, was not gotten under way until the third year of the war, and was then only a series of measures designed to meet concrete situations. The use of the tank in World War I came during the last months of that fight, and there was little interest in antitank. Indeed, interest was almost completely focussed on its offensive possibilities which were only adumbrated when that conflict ended.

Antitank development, in its primitive stage, began during the course of the Spanish civil war, when the Loyalists, faced with German, Italian and "Nationalist" tank columns, improvised antitank methods. Such methods were the crudest, relatively speaking, and included home-made gasoline "bombs" aimed at setting the tank afire, a crude grenade, often a stick of dynamite, for smashing the treads, and by means of tank traps and obstructions. The Loyalists did not have the technical means or the time to develop a specific antitank weapon or a systematic technique and special troops for the purpose.

Neither did Nazi tank formations meet with any more successful antitank measures when their *panzers* swept through Poland, Holland, Belgium and France. The Germans alone had a gun which might be termed antitank, in their all-purpose 88.

The Red Army, too, was not prepared for antitank action, nor had it developed a technique for the purpose, having also been given to the theory of mass tank attack or counter-attack as complete and decisive in itself. Hence its tactics were simply that of meeting Nazi *panzers* head-on with their tanks. The battle of the border, the first three months of the Nazi offensive, were often large tank battles in which the Red Army lost more than 7,000 tanks. These tank battles proved inconclusive, though partially successful in destroying considerable Nazi armor, and Red Army tacticians began a new orientation in developing specific antitank techniques and weapons.

By the end of the sixth month and with the battle of Moscow, Soviet antitank technique, weapons and troops were ready for the first big test

of that orientation. The use of conventional field artillery up to 155-mm., the more specific antitank guns in a 45-mm. piece, a 76.2-mm. cannon, a two-man armor-piercing rifle, and armored planes for tank-destroying purposes resulted in gratifying success. The antitank orientation was more fully developed, and Soviet tactics contemplated the use of special tank-destroying battalions to meet a panzer thrust and to keep their own tanks for follow-up and break-throughs in softened up sectors. This antitank technique was successful in the battle of the Kiev bulge when German armor massed its greatest strength that year (some 2,000 tanks) and were decisively smashed.

The British, who began to develop antitank technique after their desert defeats coincidental with the assumption of command by General Montgomery, arrived at similar and sometimes identical antitank tactics. Imperial antitank armament, which was effective in the defeat of Rommel's Afrika Corps and in succeeding campaigns, including the two- and six-pounders, the versatile 25-pounder and the most redoubtable gun of all, the American 105-mm. rifle mounted on a medium tank chassis. But a more specific antitank weapon for use by infantry as well as tank destroyer units was projected, for on January 30, 1944, an official press report was given of the new British Projector Infantry Anti-Tank (Piat), a one-man weapon with an overall weight of 33 pounds which releases a two and three-quarters pound bomb. It was described to be "a match for most types of enemy tanks, as the exploding bomb will penetrate four inches of the finest armor plate, damaging the interior of the vehicle and killing the crew," after its effective use in the Italian campaign by British and Canadian troops. The British rounded out their antitank armament with the development of an armored car carrying a six-pounder for tank destroying purposes and several machine guns for protective and strafing purposes.

American tank and antitank development followed the rising curve of enthusiasm for and then on the heels of Nazi reversal, an orientation from the spearhead concept and toward antitank. The reaction against the A1 priority of the tank as a key and decisive weapon was so sharp the one analyst complained that the "tanks were officially 'de-emphasized' . . . and that 'some armored units have been demobilized' . . . and the power and influence of the armored command steadily whittled down." In point of fact, the Armored Force, originally planned as semi-autonomous *panzer* divisions, was progressively stripped of this pivotal concept and designated as the Armored Force, and in a final reorganization termed the Armored Center. The armored divisions were broken up and distributed among the armies and corps of the land

troops command, signifying the final decision as to the role of the tank as auxiliary and not as independent spearhead.

American antitank was officially initiated during December 1941, when 52 tank-destroyer battalions were organized and 10 more projected. The manual of the antitank forces defined their functions as follows:

Tank destroyer units are especially designed for offensive action against hostile armored forces.

The characteristics of tank destroyer units are mobility and a high degree of armor-piercing fire power.

Antitank weapons used by the tank-destroyed battalions include the 37-mm., the 57-mm., and a 75-mm. tank gun (M2) firing a 15-pound shell and a 3-inch antitank gun.

## VI

It was with the development of antitank on a broad scale and its effectiveness in battle that the tactical weakness and vulnerability of the tank were fully discerned. Up until then it was only the mobility and striking power of the tank and its auxiliary armored units that were noted.

Those elements that presumably made the tank the spearhead weapon were precisely those that were its weaknesses under conditions of vigorous antitank opposition. Thus its mobility, armor and fire power were revealed to be of limited value and effect, except under conditions where little antitank obtained.

Mobility in itself is not striking power. Its value lies in moving fire power plus protection where and when needed. But it is the fire power and not the mobility that must be used. Hence the emphasis on the mobility and armor of the tank tended to obscure discussion of its fire power. The latter was predicated on the premise that the tank is primarily an anti-machine gun weapon; its armor, mobility and fire power were hence designed to overcome the firepower of rifle and machine gun concentration that was so potent a factor in World War I.

As indicated above, the deficiencies of the tank were not evident until antitank weapons were used to oppose the tank. Despite its mobility the tank, it became discernible when antitank was developed, was one of the biggest and most obvious targets on the battlefield. Thus in a duel between tank and the gun, all other conditions being equal, the gun is superior.

As indicated by Captain X in "The Case for Anti-Tank" in *The Infantry Journal Reader*, selected and edited by Col. Joseph I. Greene,

. . . the vulnerability of the tank is one of long range and that of the gun one of short range. . . the factor of audibility will be an advantage almost solely on the side of anti-tank. . . The factor of visibility, too, will almost invariably favor anti-tank."

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While antitank developments have nullified the spearhead use of the tank and brought to the fore the field piece, the tank has found its rightful place, that of a valuable auxiliary, when used under circumstances favorable for its proper exploitation. The "de-emphasis" of the tank may represent too much of a contra tank swing of the pendulum, but it will have served its purpose in deflating the hyperbolic concepts woven around that weapon.



# THE MOTIVES BEHIND THE MAGINOT LINE

BY ENNO KRAEHE

When on September 1, 1939, Hitler issued the fateful orders that sent the Nazi legions into Poland and swept the world into another mammoth conflict, few elements in the situation were so reassuring to the friends of democracy and liberalism as the French fortifications, the Maginot Line.<sup>1</sup> Less than a year later, however, this "impregnable" barrier of concrete and steel was in the hands of the Germans, and France was ignominiously out of the war. Almost immediately a dazed and disillusioned world began to ask: How had the catastrophe occurred? Why had France been humbled in defeat despite the fortifications that had stood as a Chinese Wall against any conceivable assault? The answers usually took the form of heaping abuse on the military leaders of France, who were foolish enough to bother with fortifications in the first place, or of deprecating entirely the notion of defensive warfare. These assertions may or may not be justified, but whatever their validity, perhaps some light can be thrown on the problem of the Maginot Line by inquiring why France decided to build these fortifications, why she poured billions of francs into a barrier of concrete and steel. That inquiry is the substance of this article.

Although it is much too early to have access to the most reliable documents concerning the genesis of the Maginot Line, that is, the information undoubtedly contained in the archives of the French ministry of war, it is at least possible to determine how the fortifications were explained to the French people and their representatives in the Senate and Chamber of Deputies. Indeed, the arguments for and against the French fortifications, as they were revealed in the parliamentary debates and the public press, may in the final analysis be the most significant, for it was on the basis of these disputations that the country at large finally approved the funds that made the Maginot Line a reality. Whatever pedantic and technical—and political—motives for building the fortifications may be revealed in the future, they had little to do with securing the final approval of the French people for the vast ex-

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<sup>1</sup>The literature of the late nineteen thirties extolling the Maginot Line was as sentimental as it was erroneous. The following are some of the more fantastic treatments: Thomas M. Johnson, "Underground Fortresses Guard France from Invasion," *Popular Science Monthly*, CXXIX (October 1936), 14-15; T. H. Ybarra, "France's Curtain of Fire: the Maginot Line," *Collier's National Weekly*, XCVII (June 13, 1936), 12-13; W. Williams, "Chinese Wall of France," *Saturday Evening Post*, CCIV (October 10, 1931), 18-19; and G. Adams, "Bristling Parapet of Peace," *Century Magazine*, CXX (1930), 264-270. See also the *New York Times*, May 12, 1940, Magazine Section, p. 4; and *Christian Science Monitor*, November 11, 1939, Magazine Section, p. 5.

penditures that the project required. In this respect the parliamentary debates on the fortification proposals and the literature of the day are most revealing.

The decision in 1929<sup>2</sup> to construct new fortifications was not a radical departure from the military tradition of France. Quite to the contrary, since the days of Sébastien Vauban in the seventeenth century down to Serré de Rivière in the latter nineteenth century, defensive works had been an important part of the French military preparations.<sup>3</sup> It was the more recent lessons of the World War, however, that provided the immediate historical background for the Maginot Line. These lessons had both negative and positive aspects that pointed clearly to the efficacy of defensive warfare and fortified works. On the negative side, the great offensive with which France had opened the war according to the dictates of Plan XVII, the *offensive à outrance*, ended in such a bloody failure that only a static campaign of attrition, it seemed, could hold the key to victory in a modern war.<sup>4</sup> In a positive way, too, the World War produced much evidence to show that the defensive was clearly superior to the offensive. There was the system of trenches and barbed wire combined with machine gun fire and opposed to it, that of permanent fortifications of steel and concrete—the “centers of resistance” that checked the mighty offensive efforts of the Somme and the German assault on Verdun. Indeed, of all the legends handed down from the fighting of 1914-1918, the resistance of Verdun captured the French imagination more than any other. In the words of General Normand, a well known military writer of this period

We come now to Verdun, without doubt, after the Marne, the greatest name of the war. The eyes of the entire universe are turned toward that fortress . . . Verdun, where all the largest guns of the world thundered their shells in vain on our concrete, which had been constructed in times of peace, proves the tactical value of works made in advance . . . Verdun has marvelously justified its fortification.<sup>5</sup>

<sup>2</sup>The bill “relating to the defensive organization of the frontiers” passed the Chamber of Deputies and Senate on December 28 and became law on the following January 14. For the complete text of this law, which devotes 2,900,000,000 francs to frontier defense, see *Journal Officiel de la république française, Lois et décrets*, I (1930), 466-467, hereinafter referred to as J. O.

<sup>3</sup>A useful discussion of the significance of fortifications in the military history of France is L. Montigny, “Les systèmes fortifiés dans la défense de la France depuis 300 ans,” *Revue militaire française*, LVII-LVIII (September-December, 1935), in four installments. For the influence of Vauban and Rivière in particular, see speech of Nationalist Deputy, Michel Missoffe, J. O., *Chambre des Députés, débats*, XVII (1927), 602-603; and Colonel A. Grasset, “L’organisation des frontières,” *L’illustration*, CLXXV (1930), 244. Grasset was attached to the general staff in the historical service.

<sup>4</sup>For the influence of Plan XVII on the construction of the Maginot Line see Heinz Pol, *Suicide of a Democracy* (New York, 1940), p. 191.

<sup>5</sup>General Normand, “Le rôle des fortifications pendant la guerre,” *Revue des deux mondes*, 7th per., XXX (1925), 110 and 113. Normand was for several years director of engineers in the war ministry.

Verdun, with its walls of concrete and steel, remained during the post-war years a symbol of security, a pattern for the new French defenses, the Maginot Line.<sup>6</sup>

Underlying all the more transitory motives for erecting this barrier was the haunting fear of Germany, which pervaded even the staunchest hearts among the French. Even in the late twenties, when the Reich was apparently emasculated as a military power, Frenchmen could not forget that their *patrie* had been invaded from the East four times in just a little over a century, and that each inroad had been more severe than the last. There were many men in the Chamber of Deputies who had experienced the invasion of 1914 and a few who even remembered the German occupation of 1871. Scholars might debunk the atrocity stories, but these men recounted them again and again on the floor of the Chamber and pleaded eloquently for defenses that would shield their families, vineyards, and homes from the ravages of the barbarian hordes.<sup>7</sup>

This emotional, almost fanatical, fear of Germany, moreover, was complemented by more sober and rational uneasiness stemming from strictly military or political considerations. As early as 1919 observers had expressed certain misgivings over the military restrictions placed on Germany by the Versailles Treaty, which bound the Reich to the establishment of a small, professional army of 100,000 men.<sup>8</sup> During the next ten years these misgivings assumed greater and greater proportions, as the Reichswehr's chief of staff, General von Seeckt, publicized his doctrine of the small but efficient, thoroughly mechanized army that was calculated to crush the enemy before he was completely mobilized.<sup>9</sup> In view of the icy reception later accorded the theories of Charles De Gaulle, whose ideas were very similar to those of von Seeckt,<sup>10</sup> it is difficult to understand why the French were so impressed by the German

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<sup>6</sup>The influence of the Verdun tradition on the Maginot Line is well illustrated by Marshal Pétain's legendary words, *Ils ne passeront pas*, which were embroidered on the berets of the garrison troops of the new fortifications.

<sup>7</sup>See especially the speech by Albert Meunier, J. O., Chambre, *débats*, XVII (1927), 599-600.

<sup>8</sup>Lieutenant Colonel Emile Mayer, "Les transformations nécessaires de notre armée," *Revue politique et parlementaire*, CI (1919), 339-340. Mayer was not himself one of these alarmists, but his sharp criticism of them indicates that this attitude was not uncommon at the time.

<sup>9</sup>For a summary of General von Seeckt's military ideas, see H. von Seeckt, *Gedanken eines Soldaten* (Berlin, 1929).

<sup>10</sup>Charles De Gaulle, *Vers l'armée de métier* (Paris, 1934). For a comparison of the doctrines of De Gaulle and von Seeckt, Major E. W. Sheppard, "Two Generals, One Doctrine," *Army Quarterly*, XLI (1940), 105-118, may be used.

teachings and by the Reichswehr, but the magazines, newspapers, and debates of the period are filled with warnings of the *attaque brusquée* (the rather inadequate French expression for Blitzkrieg) which might at any time be launched unexpectedly from across the Rhine. It was to thwart this initial blow and to give the nation time to mobilize that many Frenchmen urged the erection of fortifications, defenses to be permanently garrisoned with skeleton forces, a *couverture*, always on the alert for such an attack.<sup>11</sup>

Added to the French concern over the Reichswehr and *attaque brusquée* were their apprehensions of the accounts—true, false, or exaggerated—of the sub rosa military activities of their traditional foe. Although the German army was limited to 100,000 troops by the settlement at Versailles, many Frenchmen were certain that such unofficial organizations as the *Schutzpolizei*, *Sicherheitspolizei*, and the *Einwohnerswehren* were also providing young Germans with a substantial military education. It was estimated that Germany could thus throw an army of some 400,000 men into the field the moment war was declared and support it very quickly with several millions more, veterans of the last war.<sup>12</sup> It was pointed out in support of these pessimistic views that the Reich was spending three-fifths as much each year on her army of 100,000 as she had bestowed on her huge pre-war military establishment; and Germany's aggressive intentions were "substantiated" by quoting here and there from the speeches and writings of the German leaders.<sup>13</sup> Germany, in the eyes of many Frenchmen, was a nation preparing for war.

Finally, and more fundamentally, France feared the Reich for the simple, mathematical reason that there were more Germans than Frenchmen. The declining birth rate of France, together with the already overwhelming numerical superiority of her neighbor, presented a spectre that required no explanation to the people, a spectre that had plagued the nation since the nineteenth century. In spite of such measures as sanitation projects, cheap hospitalization for expectant mothers, pecuniary rewards for large families, and the encouragement of

<sup>11</sup>Colonel Grasset, "L'organisation des frontières," *L'illustration*, CLXXV (1930), 244-246; Lieutenant General Chenet, "Organisation des frontières," *Mercure de France*, CCXV (1929), 540-541; and speech of Lieutenant Colonel Jean Fabry, J. O., *Chambre, débats*, XVII (1929), 4770. Fabry, chairman of the Chamber army committee from 1924 to 1931 and later minister of war, was one of the most influential proponents of the Maginot Line.

<sup>12</sup>J. O., *Chambre, débats*, XVIII (1928), 2974-2976; and XVII (1929), 4770.

<sup>13</sup>Colonel Chenet, "Organisation des frontières," *Mercure de France*, CCXVII (1930), 320-328, and *New York Times*, February 17, 1927, p. 5.



physical education,<sup>14</sup> it was obvious that this problem had no real solution. Little consolation could be derived from the relative decline in the German birth rate after the war: there were still over sixty million Germans and only forty million Frenchmen.<sup>15</sup>

Although the danger of a German attack had been a constant source of anxiety during the twenties, this fear loomed even larger in France with the events of 1928 and 1929 and with the consequent outlook for the future. First among the immediate developments that precipitated the movement to construct the fortifications was the agreement that France had made at the Hague Conference to evacuate French troops from the Rhineland in 1930. The possibilities of the *attaque brusquée* that von Seeckt talked about had been extremely limited as long as French troops occupied the east bank of the Rhine, for then the Reichswehr was deprived of the only adequate base from which it could hurl a thunderbolt at France. After 1930, however, although the Rhineland was still to be denied to German troops, a German attack would find no opposition until it reached the French frontier. It was quite logical, therefore, that France must compensate for this concession by greatly augmenting the defenses of her eastern frontier. Again and again in the debate over the frontier organization law, this was the argument, more than any other, that the advocates of fortifications put before the Senate and Chamber; it was the consideration most often discussed in the French press.<sup>16</sup>

The agreement to evacuate the Rhineland came as a bitter pill to those (mostly of the Rightist parties) for whom French military preparedness was a fundamental aim of domestic and international politics. It was especially disappointing since it came so soon after the adoption of the army reorganization law of 1928, which reduced the term of compulsory military service to one year. The real significance of that law from a practical, military point of view was that it further decreased the speed with which France might hope to mobilize. Moreover, her mobilization was already somewhat slower than it had been in 1914 (when a three-year service law was in effect) and dangerously slow compared to that of Germany, who had the fifteen-year term im-

<sup>14</sup>Joseph J. Spengler, *France Faces Depopulation* (Durham, N. C., 1938), p. 239-55.

<sup>15</sup>Spengler, 23. For the influence of the population problem on military legislation in France, see S. C. Davis, *The French War Machine* (London, 1937), *passim*.

<sup>16</sup>See in particular Chenet, "Organisation des frontières," *Mercure de France*, CCXV (1929), 536-537; *New York Times*, February 13, 1927, p. 26; and speech by war minister Maginot, J. O., Chambre, *débats*, XVII (1929), 4235.

posed by the Allies. The explanation of this relation between swiftness of mobilization and the length of the service term is that the longer the term, the more overlapping of classes there is, and as a result, more peace time effectives are already under arms at a given time. This law of 1928 meant a reduction by one third of the French troops constantly under arms. Because of these ominous aspects, the reorganization law had been vigorously opposed by men like André Maginot and Désiré Ferry, but Paul Painlevé, in his capacity of war minister, finally pushed it successfully through the Chamber and Senate.<sup>17</sup> It was partly to secure the passage of this one-year law that Painlevé was such an ardent partisan of the frontier fortifications.<sup>18</sup>

Thus the one-year service law increased the support of the frontier organization proposals from two directions. On the one hand, the eastern fortifications were viewed as a means by which France could indulge in the luxury of a short service term without too dangerously jeopardizing her security; and on the other hand, they were demanded by another group to offset the evils unfortunately already incurred by the passage of the service law. As a result, this one-year law was second only to the evacuation of the Rhineland as an immediate argument for fortifying the frontiers.

A third consideration was the fast approaching time when the yearly classes of recruits would be greatly diminished. During the years 1914 to 1918 the birth rate in France had dwindled far below the norm on account of the war, and this numerically inferior age group was due to arrive at conscription age in 1935. If for no other reason, then, many Frenchmen were saying, the frontier must be fortified in order to give France an added safeguard in anticipation of the "lean years," 1935-1939, when the army would be at its lowest ebb.<sup>19</sup> ". . . it is a question of replacing by material defense the defense that the French soldiers would be obliged to provide."<sup>20</sup> Although it would be several more years before the "lean years" would blight French fighting power, this question was important during the debates of the frontier organization law in 1928 and 1929 because of the time that would be required to construct the fortifications; for according to the plans of the Superior

<sup>17</sup>J. O., *Chambre, débats*, XX (1926), 3785-3790, and XVII (1929), 4767. Maginot was chairman of the Chamber army committee until 1929, when he replaced Painlevé as war minister. Ferry was *rapporteur* of the Chamber army committee in 1929.

<sup>18</sup>Ferdinand Tuohy, "France Builds New Defenses," *New York Times*, August 28, 1927, Section 8, p. 5.

<sup>19</sup>Tuohy, *op. cit.*, p. 5; and speech by Maginot, J. O., *Chambre, débats*, XVII (1929), 4775.

<sup>20</sup>Speech of Paul Bernier, J. O., *Chambre, débats*, XVIII (1931), 3367-3368.

War Council, the works would be complete by 1935 only if they were started immediately (1930).<sup>21</sup>

While these developments—the projected evacuation of the Rhineland, the adoption of the one-year service law, and the approach of the “lean years”—were the most widespread arguments expounded to establish the fortifications, other events had their influence too. The Hague Conference, backed as it was by the Labor Party in power in England at the time, and the Young Plan, which ameliorated Germany’s reparation payments, led some Frenchmen to the conclusion that German equality was in the offing, and that France had been sold out by her friends.<sup>22</sup> Events seemed to justify the contention that security lay only with military strength and not with arbitration or disarmament.

All these developments of the late twenties, together with the chronic fear of the German menace, attained their fullest significance in their decisive effects on the military problem of the *couverture*. Traditionally, the *couverture* of France had consisted of the frontier guard, troops who were ready at a moment’s notice to spring into battle and fight a holding action until the bulk of the French army could be mobilized and concentrated to break the assault. In 1914 the *couverture* had been assured by troops drawn from the border areas and stationed near the frontier, where their knowledge of the terrain would compensate in part for the enemy’s assumed numerical superiority. They were to fight as long as they could and then to withdraw slowly to the protective ramparts afforded by the fortified systems of the upper Moselle and the Meuse, where they could continue the fight until the mobilization had been executed and the army strategically concentrated.<sup>23</sup>

During the post-war years, however, the problem of the *couverture* became infinitely more difficult, for analyses of the World War showed that several new problems, considered relatively unimportant in 1914, must be considered in any scheme for frontier defense. The experiences of 1914-1918 had demonstrated that a nation cannot wage modern war without the greatest possible industrial and raw material resources. It so happened that in France the most important manufacturing and min-

<sup>21</sup>Maginot’s speech, J. O., Chambre, débats, XVII (1929), 4775.

<sup>22</sup>Most concerned over the Hague Conference and the British Labor Party was Chenet, *op. cit.*, pp. 541 and 560-563.

<sup>23</sup>The foremost authority on the French conception of the *couverture* was General Debeney, a member of the Superior War Council and since 1924 Chief of the General Staff. See his article “Le problème de la couverture,” *Revue des deux mondes*, 8th per., XXXVI (1936), 268-294; and his book, *Sur la sécurité militaire de la France* (Paris, 1930), *passim*.

ing regions were located in the frontier areas, iron in the Briey and Longwy basins, blast furnaces and steel mills in the Charleville basin, and factories at such places as Dieulouard and Pont-à-Mousson. Although it had been considered permissible in 1914 for the troops of the *couverture* to abandon these regions, in 1929 such a maneuver was unthinkable. Moreover, there were now the additional provinces of Alsace and Lorraine to defend, regions that lay entirely outside the old defense line running from Belfort through Toul and Epinal to Verdun; the industrial riches of this area could under no circumstances be sacrificed by a strategic retreat.<sup>24</sup> *Nous voulons, nous exigeons d'être défendus; nous voulons garder nos usines et nos richesses.*<sup>25</sup> Although the basic concept of the *couverture*—to hold the enemy until the nation was mobilized—still held good, the traditional means of executing this aim were obsolete; as it was now impossible for the frontier guards to retreat without surrendering some of France's most productive regions and selling large numbers of Frenchmen to the enemy.

Since the military conditions of 1929 made it imperative to stop the enemy right on the border<sup>26</sup> and since the old line of fortifications, the Belfort-Toul-Epinal-Verdun line, were too far back to help achieve this aim, there was obviously only one solution: to construct fortifications on the frontier itself. The chief conclusion that can be drawn from all the debates and literature in regard to the frontier organization law is that the fortifications were first and above everything else conceived to be, not ends in themselves, but merely the best solution that could be devised for the problem of the *couverture* and all of its ramifications.

Because the fortifications were viewed in this light in 1929, the chief reason for building them was that they were meant to fulfill the same functions as the *couverture*, for indeed, fully manned by specialized troops, they *were* the *couverture*. This primary function was to help provide a temporary brake on a sudden assault in order to give France time to mobilize and concentrate her armies. Colonel Jean Fabry's speech in the Chamber makes this point very clear.

<sup>24</sup>See speeches by Franklin-Bouillon, who was the leader of the Left Radicals, J. O., *Chambre, débats*, XVII (1929), 4219, and by Flandin, *ibid.*, 4788; also Chenet, "Organisation des frontières," *Mercur de France*, CCXV (1929), 547-549.

<sup>25</sup>From a resolution adopted by the Chamber of Commerce of Roubaix, November 30, 1928. Cited by Chenet, *op. cit.*, p. 546.

<sup>26</sup>Colonel Grasset, "L'organisation des frontières," *L'illustration*, CLXXV (1930), 244; and General Debeney, "Le problème de la couverture," *Revue des deux mondes*, 8th per., XXXVI (1936), 269-270.



Is it a question of organizing fortifications able to resist for long weeks the tremendous weapons that technology can actually throw into the line? . . . That is not what we want. We desire that at the critical moment, at the moment of mobilization, in the first hours of that mobilization, our troops who are charged with guaranteeing the *couverture* can find at hand the means to fulfill their essential mission for a few days, that is to say, to permit to the nation in arms and to the reserves on whom we base the strength of our defense, the opportunity to mobilize in security.<sup>27</sup>

The corollary to this insistence upon the importance of a secure mobilization was that the armed forces were still considered the backbone of French defense; the fortifications were looked upon as a supplement to the army, not as a substitute for it. Fabry called the fortifications "in reality only a line of organized infantry,"<sup>28</sup> while General Normand, another enthusiastic supporter of the frontier organization law, held the bold position that "without doubt the best protection of a country is an army numerous enough and strong enough to carry the war to the adversary."<sup>29</sup> This subordination of the fortifications and the ultimate reliance on man power was reiterated time after time in the debates on the Maginot Line.

The fortifications represent an important element in the support of the *couverture*. I insist on these last words. They ought not to be considered as a wall against invasion. They only permit the *couverture* to hold during the time necessary for the mobilization.<sup>30</sup>

And again:

The army committee insists on underlining once more that the value of these fortifications depends essentially on the value of the troops who will be guarding them.<sup>31</sup>

In other words, the troops of *couverture*, having been diminished in number by the one-year service law, having evacuated their first line of defense, the Rhineland, and finding themselves compelled to hold at the frontier rather than retreat to prepared lines further back, could no longer be considered a sufficient safeguard against a swift assault, unless some means were found to augment the effectiveness of each individual soldier. This increased effectiveness was to be secured by erecting fortifications, not as a substitute for men but as a supplement to them. Thus strengthened, the *couverture* would be able to retard the much publicized *attaque brusquée* long enough for the army to mobilize and prepare a counter blow.

<sup>27</sup>J. O., Chambre, *débats*, XVII (1929), 4770.

<sup>28</sup>*Ibid.*, 4773.

<sup>29</sup>General Normand, "L'organisation défensive des frontières," *L'illustration*, CLXXIII (1929), 8.

<sup>30</sup>Speech by Colonel Picot, J. O., Chambre, *débats*, XVIII (1931), 3370.

<sup>31</sup>From speech by General Stuhl, *rapporteur* of the Senate army committee, J. O., Sénat, *débats*, XIII (1929), 1372.

In spite of the widespread agreement, however, on the military urgency of constructing fortifications, the old controversy over the exact nature of those works was still raging when the frontier organization law was debated in the Chamber. For the most part, this argument revolved about the successes of the two chief defensive doctrines of the World War: the trench and barbed wire system combined with scattered machine gun nests versus the "centers of resistance," the gigantic forts of concrete and steel.<sup>32</sup> Although the issue had presumably been resolved in January of 1929, when the Superior War Council approved final plans calling for a combination of the two doctrines,<sup>33</sup> the die-hard supporters of both systems were still struggling to avoid a compromise.

The proponents of the permanent works, the "centers of resistance," pointed again and again to the tremendous bombardment that the forts of Verdun had resisted; they showed that steel and concrete turrets had proved impervious to even the heaviest of shells.<sup>34</sup> In explaining the apparent failures of such works at Namur, Liège, and Maubeuge, these enthusiasts variously attributed those debacles to French reluctance to defend anything, to the offensive obsession of Plan XVII, to premature evacuation, or to the lack of concrete casemates.<sup>35</sup> On the other hand, they showed that in spite of earlier successes, the trench and barbed wire defense systems had disintegrated in the battle of the Somme and in the German and Allied offensives of 1918 under the pounding of heavy artillery, mine-throwers, trench mortars, tanks, and gas.<sup>36</sup> Finally it was explained that the fortifications were meant to support the *couverture*, and in this capacity would not be manned with the prodigious masses that had been the outstanding characteristic of the trench system of the World War.<sup>37</sup>

The partisans of the *fortification dispersée*, whose chief spokesman was Radical-Socialist Pierre Cot,<sup>38</sup> countered with equally forceful ar-

<sup>32</sup>For a summary of this controversy during the nineteen twenties see report of the Chamber finance committee of June 18, 1931, J. O., Chambre, *documents*, XX (1931), 1016-1017, Annex No. 5233; and speech by Michel Missoffe, J. O., Chambre, *débats*, XVII (1927), 602-603.

<sup>33</sup>General Debeney, "Nos fortifications du nord-est," *Revue des deux mondes*, 8th per., XXIII (1934), 250; speech by Albert Mahieu, J. O., Sénat, *débats*, XIII (1929), 1370; and Maginot's speech, J. O., Chambre, *débats*, XVII (1929), 4235.

<sup>34</sup>Especially emphatic is General Normand, "Le rôle des fortifications pendant la guerre," *Revue des deux mondes*, 7th per., XX (1925), 112.

<sup>35</sup>*Ibid.*, 94; and Chenet, "Organisation des frontières," *Marque de France*, CCXV (1929), 551-555.

<sup>36</sup>Debeney, "Le problème de la couverture," *Revue des deux mondes*, 8th per., XXXVI (1936), 270-272.

<sup>37</sup>E.g., Painlevé's reply to Pierre Cot, J. O., Chambre, *débats*, XVIII (1928), 2971-2972.

<sup>38</sup>Although Cot had not yet attained the prominence he was to acquire in the nineteen thirties as minister of air, he was at this time second only to Daladier among the Radical-Socialists.

guments. Their chief objection to the "center of resistance" plan was its inability to provide a continuous line of fire,<sup>39</sup> while at the same time it gave the enemy comparatively few targets on which he had to concentrate his artillery fire. According to Cot, "all the experience of the war shows that the organization whose location is not exactly known to the enemy is worth more, even if it is less heavily protected, than an organization whose position is known to the opposing artillery."<sup>40</sup> Moreover, it was pointed out that there were three additional disadvantages to the construction of large, permanent works. First, although steel and concrete might be capable of resisting the weapons and explosives of the late nineteen twenties, it was a question if they would be able to ward off the instruments of war that would be developed later on; the efficacy of permanent fortifications was limited in time. Second, in spite of the obvious protection that would be afforded troops shielded by these staunch barriers, the awful pounding of modern artillery would demoralize the men sooner than if they were in lighter but more dispersed works.<sup>41</sup> Cot maintained that in the last war France had lost Fort Manonviller because the men huddled fearfully in the depths of strongly armored casemates, whereas the troops who fought from shell holes could see what went on, and although they too were afraid, their fear made them fight more doggedly rather than surrender. Deputy J. M. Thomas went so far as to claim that "the attack on Verdun was halted only when our troops were able to fix themselves in the flat, open country."<sup>42</sup> Thicker walls, he added, are always met by heavier shells and greater fire power. Finally, the proponents of *fortification dispersée* insisted that since their system was much cheaper (in addition to being more effective), the funds available for fortification would be sufficient to erect a barrier along the entire frontier and not just at certain particularly menaced spots.<sup>43</sup>

No matter how much these two schools differed as to what type of fortifications to build, they were agreed on the necessity of organized defenses of some sort, and the works finally realized embodied both systems. Large concrete units of permanent fortifications were erected

<sup>39</sup>For references to the French obsession for "fire power" see the chapter, "Maginot and Liddell Hart: The Doctrine of Defense," by Irving M. Gibson in *Makers of Modern Strategy*, Edward Mead Earle, ed. (Princeton, 1943), 374 and note. See also A. F. Kovacs, "Military Origins of the Fall of France," *MILITARY AFFAIRS*, VII (1943), 32.

<sup>40</sup>J. O., *Chambre, débats*, XVII (1929), 4219.

<sup>41</sup>*Ibid.*, XVIII (1928), 2971.

<sup>42</sup>J. O., *Chambre, débats*, XVII (1929), 4777.

<sup>43</sup>*Ibid.*, 4219.

right on the frontier at the most vulnerable points and were reinforced by *fortifications du moment*, that is, works that could be constructed quickly as soon as war was declared. These defenses were executed by means of a new conception, *parcs mobiles*, which were essentially thoroughly provisioned stock piles equipped with all the weapons, tools, and materials necessary to erect scattered but deep defense lines of trenches, diminutive pill-boxes, and barbed wire. Located near strategic railroad or highway centers, this equipment could be rushed by train or truck to any sector of the front threatened with a breakthrough.<sup>44</sup> Although the primary function of the *fortifications du moment* was to support the monstrous concrete and steel artillery emplacements forming the permanent works, they were the *only* means of defense in those sectors where formidable natural barriers existed or where it was impossible to construct the large emplacements.<sup>45</sup> In the words of Maginot, "the *parcs mobiles de fortification* are indeed the necessary complement of the *fortification permanente*."<sup>46</sup>

In spite of the favor with which most Frenchmen looked on some sort of fortifications, there was a highly articulate group, composed mostly of Socialists and Communists, that opposed fortifications of any kind. Although there were many arguments arrayed against the law for organizing the frontier defenses, the objections to the fortifications can be reduced to three: the fortifications would be too expensive; they were outmoded as military expedients; and they were incompatible with the policy of the peaceful settlements of international disputes.

The contention that the three billion franc defense program was too expensive was generally based on the proposition that the financial stability of the country was as vital to its defense as any military measures were. What would it avail France if she kept the foreign enemy out only to become insolvent both at home and abroad in doing so? It was feared that this initial program would be only the beginning and that requests for credits by the war ministry and army committees would never cease, nay, would constantly increase as France committed herself more and more to the construction of armaments.<sup>47</sup>

The military objections to the fortifications rested primarily upon a

<sup>44</sup>Speech by Maginot, J. O., Chambre, *débats*, XVII (1929), 4775.

<sup>45</sup>E.g., the much neglected Franco-Belgian frontier. It must be said for Daladier that he tried frequently to convince the Superior war Council of the need for heavy fortifications on this frontier. See his speeches in J. O., Chambre, *débats*, XVI (1934), 1530, and XIX (1933), 4701. Also revealing is his testimony at the Riom trials, *Le Temps*, March 2, 1942, p. 2.

<sup>46</sup>J. O., Chambre, *débats*, XVII (1929), 4236.

<sup>47</sup>Speech of Socialist deputy Jean Laville, J. O., Chambre, *débats*, XVII (1929), 4768.



healthy respect for new weapons, especially the airplane. Many of the criticisms that Pierre Cot had made of the permanent fortifications were taken over by this minority opposition and applied to all artificial defense systems. Belief in air power, however, was the principal objection. "The frontiers will serve no purpose in a new war, for it will be a war of airplanes. These four billions are going to be spent in pure waste."<sup>48</sup> Many of the anti-fortification speeches revealed a great deal of perspicacity; they stressed the importance not only of air power but also of parachute troops, mechanization, and the dangers of the "fortress mentality."<sup>49</sup> "These emplacements, these anchored battleships, . . . will provide only an illusory protection."<sup>50</sup> Whether these opinions were sincerely held or whether they were advanced merely in an attempt to defeat the proposed fortifications for ulterior reasons can only be surmised. It can be said, however, that future events were to prove many of these contentions sound.

Neither the economic nor the military objections, however, were so vehemently emphasized as the accusation that the construction of fortifications would be a military move tending to discredit Briand's foreign policy of arbitration and disarmaments. Stresemann and other high German officials, together with myriads of German newspaper articles and editorials, were quoted at great length to "prove" that Germany regarded fortification proposals as an indication of aggressive intentions; whether these allegations were true or not, the frontier law would inspire ill-will.<sup>51</sup> This was the fundamental position of all the Socialists, who believed that "a solid organization of peace is better than a military organization of the frontiers."<sup>52</sup> The proponents of fortifications naturally replied that the works were strictly of a defensive nature and, far from contradicting France's "peace policy," constituted a complement to that policy. Nevertheless, men like René Burtin, spokesman for the Socialists, and Leon Blum, who believed in the moral strength of unilateral disarmament, could not be moved; fortifications, defensive or offensive, were, in their eyes, instruments of war.

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Such was the picture of French opinion for and against the organization of the frontier. In general, the Right, the parties of nationalism

<sup>48</sup>J. O., *Chambre, débats*, XVII (1929), 4766, speech of Emile Faure.

<sup>49</sup>J. O., *Chambre, débats*, XVII (1929), 4773-4774, speech of Socialist leader, René Burtin.

<sup>50</sup>*Ibid.*, 4769.

<sup>51</sup>*Ibid.*, 4777, speech of Maurice Dormann.

<sup>52</sup>Speech of Marcel Sturmel, J. O., *Chambre, débats*, XVIII (1931), 3370.

and conservatives, provided the most fervent enthusiasm for the frontier law, while the extreme Left, Socialists and Communists, supplied the opposition. The large and vaguely defined Center, bolstered by the Radical Socialist party of Pierre Cot, lent its weight almost entirely to the Right, and so the law was passed. Thus, the fear of an *attaque brusquée* by Germany and the weakening of the *couverture* due to the one year service law, the "lean years," and the evacuation of the Rhineland, together with the need to protect French mobilization at the first notice of war, directed France toward a policy of permanent fortifications. The result was the Maginot Line.

# REPORT OF PROGRESS ON HISTORICAL WORK IN THE ARMED SERVICES

## INTRODUCTION

BY THE EDITOR

MILITARY AFFAIRS presents below a report of progress on the historical work being undertaken in the armed services. This statement is another in the series of articles on the subject, and is in direct continuation of the analyses by Captain Victor Gondos, Jr., in the Spring and Fall 1943 issues of the Journal. In this report, however, the heads of the major historical sections offer a review of accomplishment to date and make estimate of the program for the future.

The historical program in the armed services during World War II enters its third year this summer. It was in June 1942 that orders were given for the introduction of historical research in the Army Air Forces. In the following month the Historical Section of the Office of the Quartermaster General was established. Since that date similar work has been undertaken both in Washington and the field by all arms of the service. The following reports render estimates by the men directing these activities and represent the first such combined appraisal.

## HISTORICAL BRANCH, G-2

BY LIEUTENANT COLONEL JOHN M. KEMPER

The Historical Branch, G-2, is a staff agency responsible for planning and implementing the War Department historical program, which covers administrative activities both in this country and abroad, as well as combat operations. The guiding principle of the Branch has been to confine its research and writing to fields which can not be covered effectively by other historical agencies. Research and writing is therefore as far as possible decentralized to the historical sections of the three major commands and of the various theaters of operations. The Branch's supervision of these other historical agencies is designed to assure coverage of essential subjects and maintenance of such universally recognized technical standards as careful documentation of every manuscript.

Since the historians of the major commands are writing the administrative history of their own organizations and component units, the Historical Branch is directly concerned in this country only with that of the War Department. In the theaters of operations, the Historical Branch

has endeavored to cooperate fully with theater historical agencies, through securing for them personnel, through planning programs, and especially through arranging for coverage of combat operations.

At the headquarters of the Branch in Washington, the Research and Writing Group, an Editorial Section, a Cartographic Section, a Records Analysis Branch, and a Chronology Section, all under the direction of Dr. Walter L. Wright, Jr., the Chief Historian, are concerned with production of studies within the Branch and with the editing of manuscripts coming to the Branch from other sources. A Liaison and Policy Section under Major Jesse S. Douglas is responsible for planning the over-all historical program and for maintaining close contact with historians and historical sections throughout the Army. The following officers and civilian historians are also regular members of the staff: Lieutenant Colonel S. L. A. Marshall; Lieutenant Colonel Charles H. Taylor; Captain Roy Lamson, Jr.; Lieutenant Harold T. Straw; Dr. Troyer S. Anderson; Dr. George W. Auxier; Dr. Roger W. Shugg.

Captain Gondos' article in the Fall 1943 issue of *MILITARY AFFAIRS* listed the objectives of the Branch. The first of these objectives is a series of operational monographs. The preparation of operational studies of any sort brought the Branch face to face with the problem of securing adequate combat records. To acquire greater familiarity with this problem, a pilot study on one phase of the Tunisian Campaign was written. Existing combat records were found to be scattered and inadequate.

Measures were taken to rectify the situation. The Adjutant General's Office established a central file for combat records; revision of the basic Army Regulations on records was undertaken; arrangements were made for historical officers to go to the theaters and collect information to supplement the routine records by interview, personal observation, and inspection of terrain, as well as by encouraging units to pay more attention to recording their activities. Teams of qualified officers and enlisted men were selected, trained, and assigned to various combat zones where they are now at work. Lieutenant Colonel S. L. A. Marshall, assigned to one of the active theaters, has proved conclusively the success of this experiment in the preparation of satisfactory combat narratives.

Progress has been made along other lines also. Preparation of operational studies was undertaken and pushed forward vigorously by writers both at headquarters and in the theaters. One study has been published, another is in press, and ten are in varying stages of completion. In addition, research on several more has been started. Theater



histories are under way in most of the theaters. Colonel Marshall has been designated to write a popular account of the Army's participation in the war. A preliminary study of one of the General Staff divisions has been completed and another study is in progress in the Office of the Under Secretary of War.

The prospects for adequate historical coverage of Army activities have obviously improved during the 10 months since the Historical Branch, G-2, began its work. That much of this improvement is owed to continuance of programs already functioning in the major commands and theaters before the Historical Branch was established is a special source of satisfaction.

## HISTORICAL SECTION, ARMY GROUND FORCES

BY LIEUTENANT COLONEL KENT ROBERTS GREENFIELD

Since the last report on the Historical Section of the Army Ground Forces in *MILITARY AFFAIRS* made by Captain Gondos last spring, development has proceeded on two main lines: integration with the other activities of the headquarters and its subordinate commands, and the writing of the history of the Army Ground Forces as planned.

In June 1943 the Historical Section, initially trained for its military duties by the Assistant Chief of Staff G-2, Colonel Giles R. Carpenter, was made a separate Section of the headquarters staff, whose Chief now reports directly to the Chief of Staff. In February 1943 Dr. Robert R. Palmer, on leave of absence from the Department of History of Princeton University, joined the staff; in August 1943, Captain (then Lieutenant) Bell I. Wiley, author of *The Life of Johnny Reb*, on leave of absence from the University of Mississippi, was transferred to the Section from Headquarters Second Army. In December 1943 Major Greenfield was promoted to the grade of Lieutenant Colonel. In the fall of 1943, Lieutenant Kenneth Hechler, formerly of Columbia, who had prepared a history of the Armored Force, was called in from Fort Knox on temporary duty, and made a tour of the principal AGF commands as the representative of the Section.

Contact with the field has been maintained by two devices. Historical officers of subordinate commands have been called in to headquarters on temporary duty when it seemed necessary for them to consult officers or headquarters records. Officers of the headquarters staff have visited the field to witness operations or interview officers of the field commands.

In the spring of 1944, principles and practice having crystallized with experience, it was decided to consolidate and revise all the instructions previously issued regarding the preparation of histories in a single directive, which was published with a headquarters letter dated 16 March 1944. (Letter Hq AGF 314.7/100 (16 Mar 44) GNHIS, 16 March 1944, Subject: "Histories of Subordinate Units, Army Ground Forces.") This new directive included a section entitled "Suggested Procedure for Historical Officers," which is designed to serve the purpose of a field manual for the Historical Officers of Army Ground Forces, in the absence of a War Department publication covering this activity. At the same time it was decided, for practical reasons, to drop corps from the AGF commands required to submit histories.

In the meanwhile, returns have been coming in, building up a history of Army Ground Forces on the basis of the outline that has been adopted and approved. That outline calls for a "Short History of the Army Ground Forces," "something the Commanding General can read in four hours," which will contain, in narrative form, the conclusions that can be reached at the end of the war. This will be Part I of the History to be submitted. Part II will consist of a series of close studies of fourteen or more selected topics, prepared by the headquarters staff. Preliminary drafts of seven of these have been made. Part III will consist of histories of the principal training commands that have operated under Headquarters, Army Ground Forces. There will be twelve of these studies. All but three, posted to a recent date, are on file.

Objectives remain as stated in the previous report. The Section has based its work on the existing organization of records, which in Headquarters, Army Ground Forces, is excellent, limiting its responsibility to providing, in the narratives, signs and guideposts for those who may undertake further studies. The principle followed in this, as in other matters, has been to concentrate effort on that which can be done now, which probably could not be done as well, if at all, after the war. The object is to construct a reliable preliminary record, designed to be useful to the Army in another emergency, and to future historians of the present war.

## HISTORICAL SECTION, ARMY SERVICE FORCES

BY LIEUTENANT COLONEL JOHN D. MILLET

Official military history is usually sadly deficient in data about supply and administrative activities. Accounts of military operations have

dwelt at length upon terrain, troop dispositions, and the course of battle. The preceding preparations and the supporting activities occurring behind the front lines are only now beginning to receive much attention.

General Harbord, in his book *The American Army in France*, recounts that the field service regulations on administration current in 1914 were based upon French practice, because no information was available on Civil War experience. Whether the fault was badly jumbled records or no records at all, the fact remains that little study was made of Civil War supply operations. Nor has any full account of War Department supply experience during World War I ever appeared. Thanks to General Harbord and General Hagood, we have at least a personal record of the work of the Services of Supply in France in 1917 and 1918. General Pershing likewise devotes some attention to the Services of Supply in *My Experiences in the World War*. A statistical report on the work of the Services of Supply was never published. There is a single monograph from the Historical Section of the Army War College which deals with details of the organization of the Services of Supply. None of these sources can be called an altogether satisfactory account of what the work of the SOS meant to the operations of the AEF in France. But compared with the supply and administrative work of the War Department in the United States during 1917 and 1918, the SOS overseas was a much written about organization.

As one reads Lloyd George's *War Memoirs* the meaning of total war becomes clearer and clearer. Here more than in Crowell's and Wilson's *How America Went to War* or in Baruch's final report do you get a sense of how the productive resources of a nation must be organized for a sustained modern conflict. In the present war the United States is finding out through experience.

Since the supply demands of the Army constitute so large a part of the total needs of war, it becomes more important than ever before to examine with care War Department policies and programs. Moreover, no account of this war will ever be adequate which does not give full attention to the inter-action of strategy and logistics.

The present historical program of the Army Service Forces is intended to provide data that will be readily available after the war for all students of this period. No definitive history is being attempted. Indeed, "history" is not too satisfactory a name to apply to what is being done. Instead, it might be termed "current reporting," or "capturing and recording present developments." If an adequate record is left behind, future research and reconstruction not only should be facili-

tated but also should present more realistic results.

In an organization the size of the Army Service Forces, with its wide variety of tasks, the constant problem is one of selection and emphasis. It is not always appreciated that there are many different audiences. The student of administration is interested in organizational arrangements and processes; the economist in price policy and practice or manpower utilization, among other things; the scientist in research programs and equipment performance; the student of personnel in labor relations; the medical student in the many phases of medical development.

Much depends upon whether the approach is broadly interpretative or one seeking specific guidance for a comparable situation.

Within the Army Service Forces at present there is a General Reports Unit in headquarters working closely with other staff agencies, and there are historical divisions or branches in the seven Technical Services — Ordnance, Quartermaster, Engineers, Medical, Signal, Transportation, and Chemical Warfare. For the most part, their approach has been one of preparing monographs on specific subjects. These monographs are narrative in form, supported by selected documents, references to appropriate administrative reports, and other evidence. The author must inevitably inject a point of view, but this seems desirable rather than objectionable as long as the evidence is provided for any contrary position.

To date some 37 monographs have been prepared in Headquarters, ASF, ranging from twenty pages to two hundred. The subjects cover such fields as the movement of a division overseas, the location of new construction, testing and classification, work simplification methods, overseas supply policies and procedures, and War Department relations to economic mobilization. The Quartermaster historical unit has prepared over 40 monographs, some of large proportions. These have dealt with Quartermaster equipment for special forces, research and development of special rations, production control, the work of various depots, the market center program, the supply of desert training, and the wardrobe for Army nurses and WACs. Transportation monographs have dealt with the control of domestic traffic, water transport problems, and the expansion of Army transportation facilities. Signal Corps monographs have been written on the Alaska military highway telephone line, early radar research, lend-lease of signal equipment, and V-mail. The Corps of Engineers has prepared about twenty monographs covering construction activities and equipment development.



The Medical Department has projected a history to encompass twenty-two volumes on such subjects as neuro-psychiatry, reconditioning of patients, internal medicine, vital statistics, new drugs and appliances, and the relation of injuries to offensive weapons. The Ordnance Department is at work on some ten volumes to cover the development, use, and procurement of various types of weapons—small arms, anti-aircraft artillery, mobile artillery and combat vehicles of all kinds, ammunition, and similar subjects. The Chemical Warfare Service is at work on two volumes about the use of smoke, incendiary bombs, and other chemical developments.

This type of work will continue throughout the war. How far the War Department will go with historical activity after peace comes no one can foretell. But the Army Service Forces will leave on deposit a considerable record for future use by scholars. To be sure, the quality will be uneven. Few students will be willing to accept the results as final. But as a guide and as a ready source, these data should be most useful.

Finally, the Army Service Forces has already prepared an annual report for the fiscal year 1943 that presents a comprehensive, general picture of the work of the agency. Another such report will be written for the fiscal year 1944. When the war is over, a fairly sizeable final report is planned to provide some understanding of what the ASF has done.

The historian of the future should have no excuse for omitting supply and administrative factors from his account of the war effort.

## THE AAF HISTORICAL PROGRAM

BY LIEUTENANT COLONEL CLANTON B. WILLIAMS

In June 1942 the Chief of Air Staff directed the Assistant Chief of Air Staff, A-2 (Intelligence) to assume the responsibility for "keeping a running account of Army Air Forces participation in all military actions in all theatres." Shortly thereafter it was directed that there be established a historical agency "capable of writing an accurate military history of the Army Air Forces." This directive went on to state:

It is important that our history be recorded while it is hot and that personnel be selected and an agency set up for a clear historian's job without axe to grind or defense to prepare.

Concurrently, the War Department ordered the establishment of historical sections to carry out the President's expressed desires that each

war agency "keep a current record of war administration."

Through the two years since then many additional directives have been sent down through channels in furtherance of the objectives contained in those original expressions. Needless to state, there has been evolution in thought and planning as well as in organization and production.

To bring together in orderly fashion important data gleaned from the millions of documents being prepared in the Air Forces, to commit to paper viewpoints expressed and decisions made in thousands of informal but important conferences, to interview key personnel everywhere and to record their direct quotations, to learn the results of innumerable official telephone conversations and the gist of verbal orders—all this is necessary spadework of the AAF historians. To weave together these myriad data into unit and base histories, histories of successively higher echelons of command, to synthesize and analyze the high policy materials, nearly all of a highly secret nature; to get these facts while office records are intact and personnel are active; and then to dovetail these data from high and low, near and far, into appropriate volumes is the general objective of the AAF historical program. That program is in process of realization. The Army Air Forces is compiling a scientific record of its experiences for current use and especially for future planning.

The organization undertaking this project is the Historical Division, AC/AS, Intelligence. This Division is divided into five Branches, three of which are subdivided into sections. The Administrative History Branch is responsible for historical activities of all domestic Air Forces and Commands. The Operational History Branch supervises, coordinates, and synthesizes the historical work of all overseas Air Forces. Each of these major Branches, besides administering field activity, also is monitoring work submitted from the field and preparing staff monographs which will become chapters in their respective histories. Together they have twelve Sections whose titles are self-explanatory: Legislation and Authorization, Administrative Procedures, Personnel, Training, Materiel, Field Services, Western Hemisphere, European, Mediterranean, Central Pacific, South and Southwest Pacific, and Asiatic. Another major Branch is that entitled Sources and Editorial which includes the Archives, the Reference and Chronology, and the Art and Production Sections. The Biographical Branch and the Pre-Pearl Harbor Branch complete the Division, except for the Offices of the Chief and the Executive.

Every Air Force and Command, domestic and overseas, has a his-

torical section headed by an officer of high academic training, capable not only of research and writing but also of instructing lower echelons in the techniques of research and writing. Every Division, Wing, Base, operational Group, and operational Squadron has a part-time historical officer, many with trained enlisted assistants who are gathering, analyzing, and submitting up through channels the most important historical data.

Research topics and dead-line dates have been set from top to bottom in the work being done in this country. For example, the Training Section of the Administrative History Branch has a list of twenty-seven monographic studies scheduled through a two-year period. Base histories in this country are being written in three chronological installments after which they reach a point where current monthly installments are required. Most bases have already completed their first two installments, that is through 1943; some have already reached the monthly installment status. Each unit history is accompanied by copies of supporting documents. Historical Officers' Circulars, Critiques, and specific directives are regularly issued. If the unit history does not come up to standard it is returned for revision. That standard includes an analysis of the performance of the assigned mission of "difficulties encountered, new techniques evolved, and lessons learned which should be passed on to others." Strong directives have gone down to the lower echelons to elicit support for the historical officers from their commanding and staff officers and to insure to the historians "access to all data of historical importance whether or not current."

Domestic field historical sections besides administering the program in lower echelons are doing special staff work of current value while compiling the over-all history of its Air Force or Command. Its monographic work is also set up on a priority schedule basis. For instance at Headquarters, Materiel Command, Wright Field, Ohio, the Historical Office, besides administering the lower echelon historical activity, is preparing a case history on each important type of materiel developed for or by the AAF. It is also writing the administrative history of the Materiel Command.

Overseas the AAF historical program is now built on the same general pattern, though the objective of finished writing in the field is hardly possible of achievement. The primary mission of overseas historical officers is to organize the lower echelon activity, to insure the writing of unit histories and the gathering of important data and to submit to the Historical Division regularly such data, carefully identified and, wherever time and personnel permit, critically annotated.

Plans have been instituted whereby overseas historical officers, upon re-deployment or inactivation of their organizations, will be reassigned to the Historical Division in Washington where in conjunction with the theater historians of the Operational History Branch they will complete their work before returning to civilian life. Each Section of the Operational History Branch is in touch with its complementary overseas historical personnel, exchanging information and advice. Theater historians monitor incoming materials immediately, supplement them with notation of the existence of other pertinent data in War Department files, and through the preparation of monographic studies prepare themselves to undertake the finished work in conjunction with the Air Force historians when they have returned from overseas and have been reassigned to the Historical Division.

The Archives Section of the Sources and Editorial Branch has developed a simple but efficient system of classification and filing. The unit of origin is the key to its procedure. Its work is steadily increasing as materials arrive at an increasing rate. Despite the fact that there are no duplicate holdings nor duplication of work done elsewhere in the War Department, and despite the continuous effort to have materials in the field culled to include only copies of the most important data, the rate of archival receipts is increasing as unit histories and their supporting documents and other valuable data move up through channels and are now breaking through the flood-gates.

## NAVAL HISTORICAL PROGRAM

BY ROBERT G. ALBION

The general aspects of the Navy's wartime historical setup were outlined in last winter's issue of this journal. Briefly, it falls into two major divisions which deal with activities afloat and with those ashore. The latter, officially labelled "administrative," but actually covering the whole general performance at the Navy Department headquarters and in the Shore Establishment, is being handled by a group of bureau and office historical officers, coordinated under the supervision of the Recorder of Naval Administration. The administrative historians are a closely-knit group and have developed a considerable amount of co-operative work. The events at sea are being narrated by several separate groups, established by different authorities. The Office of Naval Records and Library and the Office of Records Administration are making available for both groups the pertinent source material for present and future research.



The primary purpose of the "shore program" is the preparation of critical studies for the use of the Department, so that the lessons of the present war-time experiences will be made available to those who may have to encounter similar problems later. Such studies are being carried back to the beginning of the emergency; in many cases the departmental events of 1940 and 1941 would already be forgotten history, in view of the frequent changes in personnel, were it not for this program. Some of these studies have already proven of considerable value during the progress of the present war, particularly in orienting officers newly assigned to a task. Such studies are designed for limited circulation, but may, if occasion warrants, serve as the basis of published accounts.

In addition to detailed analysis of the workings of the bureaus and offices at Washington, the studies are being extended to various related activities in the field. Thus the historical officers of Yards and Docks will deal with distant installations and bases, while shipyards, ordnance plants, supply depots, hospitals, air stations, and the like are the concern of the other bureau historians. Likewise, the Recorder of Naval Administration and his field representative are not only analyzing the workings of the secretariat and command, but also the more remote functioning of the naval districts.

Whereas that shore story might never have been told unless the Department had appointed men to the task, the events at sea would certainly have been recounted, in one way or another. Several separate groups are at work in this field under naval auspices, either on immediate or long-range projects. In the latter category, the Historian of Naval Operations is still making frequent trips to participate in actual operations, while two junior officers are assisting him in this work. A second group, which has been effectively engaged for some time, must for the time being remain anonymous. In addition, a detailed record of the play-by-play performance of naval aviation is being maintained by a section under the Deputy Chief of Naval Operations for Air.

The latest project in the operational history program has been undertaken by a group of officers from the Magazine and a Book Section of the Office of Public Relations. They are preparing a series of narrative volumes for immediate publication; this "history while it's hot" is designed to make a full and readable combat account available to the public while the war is still in progress. The volumes are being published under the auspices of the Council on Books in Wartime, with all profits going to Navy Relief. The first volume, dealing with the

Pacific situation from Pearl Harbor to Coral Sea, will appear early in the fall. A second will cover the Atlantic from the Neutrality Patrol through the African landings, while a third will carry the Pacific story from Coral Sea through the Solomons.

## UNITED STATES COAST GUARD

BY LIEUTENANT COMMANDER F. R. ELDRIDGE

Alfred Korsybsky has furnished the best justification for history writing when, in his *Manhood of Humanity*, he sets man apart from the animal, vegetable and mineral kingdoms by his single "time-binding" capacity. By "time-binding" he explains that man's is the only kingdom where time is bound over from the past and the mistakes of the past are used for future progress. In the animal kingdom only "space-binders" exist, while vegetables are distinguished from minerals in that they grow. But man is not only held together by chemical law like the mineral, he also has the capacity of growth like the vegetable, and in addition the capacity to move about, an added attribute of the animal. The one thing which definitely distinguishes him from the animal is his "time-binding" ability.

I hesitate to designate my fellow "historians" in the various history writing projects as "time-binders," however, for fear that some *lapsus linguae*, or Spoonerism, voluntary or involuntary, might fix upon us some such opprobrious cognomen as "spellbinders," or even "timeservers." Nevertheless, there is no mean, secret satisfaction, in my own case, in the realization that by recording the events of this war so that posterity may presumably profit by our mistakes, we are furnishing the only war material, so to speak, which will finally distinguish us as men.

As for the history-writing project in the Coast Guard, it was assigned to the Statistical Division (formerly Research and Statistics Section of Operations) because we had already done some writing on Pre-Pearl Harbor defense in our studies on "Greenland, 1941," "Protective Custody of Italian, German, Danish and French Merchant Ships," "Captains of the Port," "Ten Coast Guard Cutters" (a history of ten cutters turned over to the British), "Army, Navy and Coast Guard Training, 1941," and "Bering Sea Patrol, 1940-1941." We had also compiled some elaborate "National Defense Statistics" (in typewritten form only), and made a study of "Ice Breaking on the Great Lakes, 1941" to show the importance of this operation in increasing our supply of iron ore at the Pennsylvania and Ohio steel mills. A series of "District

Studies," basically statistical, showed, over a ten year period, moreover, the relationship of our Aids to Navigation Operations to Army Engineers' dredging and maintenance of harbors and channels as well as to other basic conditions, by districts, such as movement of commercial traffic, economic production, registration and enrollment of merchant vessels and yachts, and weather conditions over a period of 50 years or more.

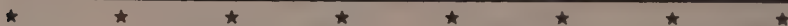
When the war diaries began to arrive, both from floating units and district offices, early in May 1942, a system had to be devised for getting the essential material for a "History of the Coast Guard in World War II" out of them before they were filed, primarily because of the tremendous volume of material, some of it of no historical value, that future historians would have to wade through. The War Diary Abstracts were thus inaugurated. We have, so far, 496 single-spaced type-written pages (about 200,000 words) of these for the calendar year 1942 and over 500 pages for the calendar year 1943. This material is the basic data without which no history of the Coast Guard in World War II could be written.

We have sought to overcome these handicaps in two ways. First, by assigning an historian to collate and abstract all the contemporaneous historical material relating to the war which in any way affects the Coast Guard; and secondly, by sending a questionnaire to and interviewing personally as many of the Coast Guard personnel as possible, on their return from overseas. Both methods are proving satisfactory.

As for the final writing of the history we feel more and more the longer the conflict lasts, that less and less effort should be made to write up events in final form while they are being enacted. The evanescence into their proper historical perspective, of many events judged paramount in their importance at the time, is the best justification, we believe, for this decision. Nevertheless, we are writing up, at the moment, a spot description of Coast Guard operations at what we believe to be their peak. This work is being undertaken by Lt. Kensil Bell, author of *Always Ready*, which so ably brought Coast Guard history up to World War II in a popular and readable style.

Thus we in the Coast Guard are writing military history largely without military background and certainly not as professional historians. We trust that both the military men and historians will view our efforts with equanimity, and that it may not be said of us, as of Launcelot

His honor rooted in dishonor stood,  
And faith, unfaithful, held him falsely true.



## HEADQUARTERS GAZETTE

We regret to announce the death of Vice-Admiral William L. Rodgers, President Emeritus of the Institute. Admiral Rodgers died on May 7 in Washington, D. C., after an illness of several months.

Admiral Rodgers was born in Washington, D. C., on February 4, 1860, and graduated from the United State Naval Academy in 1878. He served as commanding officer on various ships during his career at sea and also served as President, United States Naval War College, 1911-13, and Commander-in-Chief, Asiatic Fleet, in 1918-19. He was a member of the Navy General Board, 1915-16, and was a member and chairman of the Executive Committee of the General Board in 1920-24. He retired from active service in 1924.

An enthusiastic student of military history, Admiral Rodgers was one of the first members of the Institute and served as President from 1937 to 1941.

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The series of public meetings of the Institute continued through the last quarter. On March 28, 1944, Dr. Ladislav Farago, editor of *Axis Grand Strategy* and *German Psychological Warfare*, and author of a forthcoming book on *Psychology of Japanese Warfare*, spoke on the latter subject at the National Archives, Washington, D. C.

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At another meeting held in Washington on April 29, 1944, Lieutenant Colonel Kent Roberts Greenfield, Army Ground Historian, acted as chairman at a round table discussion on "How to Write War History." Participating at this session were Lieutenant Colonel John M. Kemper, Chief, Historical Branch G-2; Major Wesley Craven, Historical Section, Army Air Forces; Lieutenant Commander Gilbert P. Simons, Office of Naval Intelligence; and Dr. C. C. Wardlow, Chief, Historical Section, Transportation Corps.

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The concluding meeting of the season, held in Washington on May 19, featured a review of war history work in the field by Lieutenant Colonel S. L. A. Marshall, Historical Branch, G-2. Colonel Marshall detailed with earnestness and force his experiences at Makin and Kwajalein.

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The Library of the Institute was the recipient of a gift of more than 1,000 volumes from the Army War College. Colonel Gibson, Librarian at the War College, who has been most sympathetic in his interest in Institute affairs, was responsible for this most recent transfer.

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George J. Stansfield, Librarian of the Institute, announces a gift of more than 200 regimental badges of the British Army from the War Office, London.

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The series of exhibits of our "Allies at War," mentioned in our last issue, continued through the quarter with displays of photographs, posters, and publications on the war effort in Russia, China, Australia, Holland, and Poland.

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#### AMONG OUR CONTRIBUTORS

Dr. A. C. Davidonis is on the history faculty of Princeton University and a consultant at the Navy Department.

Gavin Long is Official War Historian of the Australian Commonwealth.

Enno Kraehe is on the history faculty of the University of Missouri.

Major General S. R. Wason, C.B., M.C., is a prominent British artillery specialist.

Fred K. Vigman, of Philadelphia, a student of military affairs, appears in the Journal for the first time.

Dr. Stuart Portner, Editor of MILITARY AFFAIRS, is on the staff of the National Archives.

Lieutenant Colonel John M. Kemper is Chief, Historical Branch, G-2.

Lieutenant Colonel Kent Roberts Greenfield is Army Ground Historian.

Lieutenant Colonel John D. Millett is Chief, Historical Section, Army Service Forces.

Lieutenant Colonel Clanton B. Williams is Chief, Historical Section, Army Air Forces.

Dr. Robert G. Albion is Recorder of Naval Administration in the Navy Department.

Lieutenant Commander F. R. Eldridge is Chief of the Historical Section, United States Coast Guard.



## THE MILITARY LIBRARY

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*Triumph of Treason*, by Pierre Cot. (New York: Ziff Davis Publishing Company. 1944. Pp. 432. \$3.00.)

The underlying motive of the book dealing with the momentous events in France from 1936 to 1940 is an appeal to the Anglo-Saxon world in behalf of the defendants of the Riom Trial. The background is supplied by a detailed discussion of the Popular Front movement, its government and its policies which M. Cot helped to shape in his capacity as Air Minister.

Turning the accusation around, the author, with formidable statistical material, proves that the real responsibility for the fall of France rests on the French General Staff and Marshal Pétain. To save their face after the collapse they arraigned the Popular Front leaders and, flagrantly violating all legal and moral principles of a fair trial, attempted to shift the responsibility upon people whose innocence, on M. Cot's pages, emerges as something above any shadow of doubt. But the author hastens to add that this lily-white innocence is merely his theory which must be later substantiated when more documentary material will be available.

In spite of lack of original documents, the part of the book dealing with military problems on the eve of the war is a very valuable contribution. The chapter on the French air force, for obvious reasons, stands out as the *chef d'oeuvre*. And the discussion of the legal aspects of the Riom Trial is perhaps the best so far written in English on this topic.

Had the author satisfied himself with furnishing original contributions to this highly controversial problem, the book would rank as a first class source. Unfortunately the factual material plays only a subordinate role. The main thing seems to be to take sides in a political quarrel. With feeling running high, M. Cot plays havoc with historical evidence and sober judgment and establishes a thesis which will hardly be accepted as valid by American historiography: that the French bourgeoisie has outlived its historical usefulness, is incapable of leadership and that the proletariat must take over after the war. As he sees the genesis of the present war, the conflict started because in May 1936 the Popular Front or at any rate the "majority within the majority" failed to establish a dictatorship. The same mistake

must not be repeated next time. European politics have become polarised so much, concludes the author (p. 392), that there are no more moderate liberals and conservatives, only reactionaries. . . . After reading this conclusion one wonders whether in this process of polarisation the "majority of the majority" has been able to preserve intact those democratic and republican virtues which they so vociferously deny to exist among the "stupid and wicked bourgeoisie."

The *sine qua non* of Democracy is tolerance and there is not an ounce of it in this otherwise weighty volume.

A. F. KOVACS,  
St. John's University

*Lend-Lease: Weapon for Victory*, by E. R. Stettinius, Jr. (New York: The Macmillan Company. 1944. Pp. x, 358, \$3.00.)

The story of Lend-Lease as told by Mr. Stettinius is essentially a story of mutual aid in mutual self-interest. There are innumerable viewpoints from which the relationships involving finance and supply of the United Nations during the past four years might have been told, but he has chosen to view all phases of these relationships from this one simple, basic point of view. The strength of this *apologia* for Lend-Lease lies in constant reference to the applicability to each phase of Lend-Lease of the principle of mutual aid in mutual self-interest. This is the oft repeated theme of the story and the author seldom wanders from it.

There are undoubtedly taxpayers in the United States who misunderstand or who wholly disapprove the theory and practice of Lend-Lease; for them Mr. Stettinius' book should be highly enlightening. Granted that the United States is a belligerent in the war and that every effort should be made to bring the conflict to a victorious end as soon as possible, few people can read this book and then refuse to admit the logical basis of Lend-Lease.

On the other hand, certainly in the Congress and throughout the country the outright opponents of the theory behind Lend-Lease have been relatively scarce, but the critics of the administration of Lend-Lease have been many. Few people object to the principle of giving mutual aid in mutual self-interest; it is after this platitude has been accepted and the interpretation of what it means—in terms of dollars and materials—is begun that criticism begins. Why not more aid to China? Why not more aid to Russia? Why so much aid to Great Britain? Would it have been more to our own self-interest to have kept a greater proportion of our industrial output to equip our own

Army in the dark days when inductees were being trained without adequate equipment? Why build air-fields in Africa? Is Reverse Lend-Lease adequate in amount, all factors considered?

Mr. Stettinius touches on few of these questions, aside from emphasizing that difficulties of transportation have been a major influence in determining the recipients of Lend-Lease goods. The basic importance of transportation facilities—or lack of them—underlies much of the story of Lend-Lease and explains many allocations of money, manpower and materials. But perhaps because these allocations are so intimately related to the overall strategy of the war, there is little explanation of why some things were done and why others were not done. Perhaps we must wait until after the war for a clearer explanation of these military and naval elements in the story, but they are the elements that are criticized in the Congress, in newspaper and periodical columns, and in personal conversations. It is not so much a question of why is Lend-Lease needed as it is a question of whether Lend-Lease has been so administered as to achieve a maximum of effectiveness in prosecuting the war with a minimum of ultimate expense to the taxpayer. And this latter question Mr. Stettinius hardly mentions.

There is little in this book that only Mr. Stettinius, by virtue of his position as Lend-Lease Administrator, could have revealed; a few conversations are reproduced, inevitably with more or less fidelity to fact, and they serve to heighten the human interest of the story but for the most part any informed reader of important newspapers and of Congressional hearings could have gathered all the information presented by the author. On the other hand, Mr. Stettinius' obvious enthusiasm for the principles and administration of Lend-Lease—as representing the beliefs of a hard-headed business man who could hardly be tarred with the label of “New Dealer” or “theorist”—may reassure those taxpayers who have more faith in the *genus* American business man than they have in the *genus* American politician that Lend-Lease operations have been a weapon for victory and not a road to bankruptcy.

E. G. CAMPBELL,  
*National Archives*

*Tarawa: The Story of a Battle*, by Robert Sherrod. (New York: Duell, Sloan and Pearce. 1944. Pp. 183. \$2.00.)

*Tarawa: The Story of a Battle*, is the account of what one reporter saw, heard and thought before, during, and after that battle. This book is one of the most vivid battle stories written, so much so that the



reader at times finds his heart pounding in a small way as the fighting man's heart pounds under the conditions of battle. Even so, it is inadequate, as any collection of printed words must be, because it cannot impart the actual sounds, smells and deep emotional reactions of a participant.

Robert Sherrod gives the plans and preparations for the attack briefly, but with an illusion of detail which does not become tiresome. A touch on the history of the Gilberts completes the background for the approach to, and the battle itself. He lives with the Marines aboard their transport and directs his pencil spotlight on shipboard activities bringing the individual, his thoughts and reactions, to prominence out of the whole mass. There is no rosy tinge to this spotlight, the bright brilliance of revealing white light cuts through all pseudo-glamor that might be attached to any phase of combat. The development of a peace loving civilian into a fighting man, as typified by the Marines, is effectively told by the author.

The battle itself is covered by a day by day factual account and it is in this that the reader finds himself on the spot living, fighting, breathing and dying with the Marines who are fighting one of the bloodiest, rough-and-tumble battles of all times. Here one sees the team work so necessary in war—the team of individual to individual; the big team of infantry, artillery, tanks, planes and ships all working for one goal, VICTORY over an enemy who thought Americans would be too soft to fight.

After the battle, the author makes a tour of the island viewing the wreckage left and gives an excellent description of the defenses which even in defeat and ruin still seem impregnable. He asks himself as does each man, "How did any human being manage to land on this island and stay alive?"

The last chapter entitled "After Thoughts" is worth the price of the whole book. To sum up in the author's words—"This is, I reflected, the United States' war, not the sailors' war, or the Marines' war or the soldiers' war."

R. W. WALLACE,  
*Lt. Col., USMC*

*Bataan: The Judgment Seat*, by Lieutenant Colonel Allison Ind. (New York: The Macmillan Company. 1944. Pp. 395. \$3.50.)

This purported "Saga of the Philippine Command of the United States Army Air Force, May 1941 to May 1942," is really Colonel Ind's personal saga depicted against the background of this unit. An

air intelligence officer, he relives in this book *his* experiences in the Philippine campaign from the days of confusion prior to the attack through the incredible frenzy of the disaster to his aerial escape in March 1942, twenty-four hours after the departure of General MacArthur. However, in his pages appear the famous and lesser-known defenders of the island and in particular Colonel (later General) Harold H. George. The book is in some respects a tribute to the latter, who is depicted on an heroic scale and whose death is the closing event in the book.

It is hailed—to quote the packet blurb—as “an ‘inside’ story, written by a man who has dared to tell it straight.” It is unusual to find a staff officer still in active service writing so frankly about men and events (particularly in the military sphere) but this phase of the book is being exaggerated. For example, Colonel Romulo in a review in *The New York Times Book Review*, March 26, 1944, hails the author’s “revelation of how the American planes were caught on the ground by the Japanese” as being the “highlight of his story.” I have before me a letter published in the *New York Herald Tribune*, September 8, 1942, commenting on the fact and did any members of the Book of the Month Club miss the comments in W. L. White’s *They Were Expensible* (New York, 1942) to the same effect on, for example, pp. 35, 37, and 46?

The book’s style reflects the author’s journalistic background. To my mind it is occasionally effective but too often straining toward the purple tinges of the “literary” schools ranging from Hearst to Hemingway. It may make the book more palatable to the general reader but it detracts from the claims that it is a realistic and professional report.

In these days when the memories of the disaster of the early Pacific war are being washed away by the flood of victorious reports, it is important that we recall the past when things were quite different. The testimony which Colonel Ind presents to show the shortcomings of our military policy may be deserving of being culled from the chaff in his book but it is a difficult task.

JOHN R. CUNEO,  
*East Norwalk, Connecticut.*

*Intervention at Archangel*, by Leonid I. Strakhovsky. (Princeton: Princeton University Press, 1944. Pp. vii, 336. \$3.00.)

Chronologically speaking this study is a sequel to the author’s pre

vious book *The Origins of American Intervention in North Russia, 1918*. The scope is now broader and the treatment more detailed because Strakhovsky (1) has been able to avail himself of the recently made available material and (2) because he has aimed to "tell of the experience of all the Allies, not of the United States alone, in facing and solving the problems which beset them during their intervention at Archangel."

The result is a thoroughly documented account of one of the most bizarre episodes of the last war; few specialists in this field will be able to compete with Strakhovsky in his ability to handle especially the Russian sources. In this respect, it is a work done with the historian's microscope and fine pencil rather than with the artist's broad brush, and is practically literarily indigestible. At the same time, it is in several respects a disappointing performance, especially for what it omits. Although the participation of the Czechoslovak Legions in the intervention looms large, at least in the opinion of the reviewer, Strakhovsky's index refers to them only on three separate pages. Even more startling is his bibliography which does not even claim to be "selective." next to recent Dupuy's book on this very topic, Strakhovsky blissfully disregards numerous other studies of the Archangel venture. Henry Baerlein's *The March of the Seventy Thousand* (London: Leonard Parsons, 1926) might be out of date and limited to the exploits of the Czech legions in Siberia, but is important enough to be at least noted. Then there is quite a considerable literature in Czech on Strakhovsky's topic; in fact, several excellent studies exceed in size his volume and contain valuable documentary sources. Just to mention a few: there are R. Gajda's *Moje Pameti* (*My Memoirs*, Prague, 1921), Frant Vl. Steidler's *Ceskoslovenske Hnuti na Rusi* (*Czechoslovak Movement in Russia*, Prague, 1922); and others. Furthermore, even if Strakhovsky cannot read Czech, how about such sources as Maurice Janin's memoirs, and C. G. Fairfax Channing's *Siberia's Untouched Treasure* (New York: Putnam, 1923)?

Everything considered, one cannot admire too much Strakhovsky's skill with which he has put together his mosaic out of its thousand details. But many details must be missing since many sources are not cited. Hence the book cannot be wholly excluded from the rapidly growing library on Strakhovsky's topic, but, as a whole, it needs to notice numerous other works in this field in order to make its treatment more definite and place it at the same time in a more proper focus.

JOSEPH S. ROUCEK,  
*Hofstra College.*

*The Geography of the Peace*, by Nicholas John Spykman. (New York: Harcourt Brace and Company. 1944. Pp. 66. \$2.75.)

A growing number of scholars and publicists are now seeking in the precepts of geopolitics the key to world political problems. For this they are being taken to task—sometimes severely—by other scholars and publicists. These critics assert that geopolitics is a German science, hence implicitly evil. The followers of geopolitics reply that their science provides a rigorous analysis of power politics and thus of the harsh realities facing all makers of foreign policy, be they lofty idealists or sinister Machiavellians.

Indeed, more important than the origins of geopolitics—which, incidentally are dubious—is the question as to whether its teachings do apply to that complex of geographical certainties and human vagaries called international politics. The late Dr. Spykman held that they do.

Dr. Spykman in his celebrated *America's Strategy in World Politics* stressed his overriding concern with the geographical factor in international relations. Perhaps the best pages of the book are those devoted to polemic: The author mightily belabors the legalistic formalism which, he claims, has dominated American thinking on world affairs between two World Wars.

Dr. Spykman held that the data of world politics can be analyzed scientifically and that moral rectitude alone does not assure the survival of a nation. The strength of a state is determined mainly by the size, topography, and location of its territory and the size of its population, i.e., its "power position." The idea that political power can be measured is not altogether novel. The same claim is advanced for modern sociology with its grimly scientific orientation and quantifying propensities.

A vigorous prose and a flair for the impressive antithesis make *America's Strategy in World Politics* a highly stimulating book. It is doubtful, however, that Dr. Spykman's adaptation of geopolitics as a system for measuring the data of power politics has blazed new trails of scientific investigation.

*The Geography of the Peace* supplies an epilogue to *America's Strategy in World Politics*. It applies the geopolitical method to the analysis of the United States' power position after World War II and examines several alternatives in foreign policy. It abandons Dr. Spykman's earlier thesis of a new balance of power, manipulated and stabilized by the uncommitted power of the U. S. Instead, a more mellow type of "security policy" is suggested, namely U. S.-British-Russian



collaboration. The object of the cooperation of these three superstates is "to prevent the consolidation of the rimland regions." According to *The Geography of the Peace*, "the rimland of the Eurasian land-mass must be viewed as an intermediate region, situated as it is between the heartland and the marginal seas." Thus the Pivot of World History is shifted by Dr. Spykman from the center of Eurasia where Sir Halford Mackinder had placed it in his famous lecture in 1904, to the Atlantic littoral, the Persian Gulf and the Asiatic monsoon lands. These conclusions are fortified by numerous maps containing the familiar cartographic symbols of geopolitics, i.e., arrows, loops, isotypes and shadings. An essay on the elements of map making explains how to use maps in geopolitical analysis.

*The Geography of the Peace* may find a comfortable place on the list of introductory readings in international relations. It is innocent not only of the massive contradictions, but also of the brilliance which distinguished the late Dr. Spykman's earlier work. Geopolitics, even German geopolitics, is more than a mere exercise in vast generalizations. If an American geopolitics is to bear fruit in a more scientific orientation of U. S. foreign policy, it must become proficient in the methods of geography, economics and military science. If this condition is met geopolitics may still prove but a weak reed upon which to lean U. S. strategy in world politics.

ROBERT STRAUZ-HUPÉ,  
*Washington, D. C.*

*War and Postwar Adjustment Policies*, by Bernard M. Baruch and John M. Hancock (Text of Official Report and Related Documents). (Washington: American Council on Public Affairs. 1944. Pp. 131. Cloth \$2.00. Paper \$1.00.)

This volume contains the full text and related documents of what this reviewer considers the most important government report issued so far in 1944. Outlined in detail are suggested plans for the retraining and reemployment of both veterans and those engaged in war work, as well as plans for the settlement of terminated war contracts and the disposal of surplus property.

The authors have a splendid background for the preparation of this study and the recommendations which they make. Both of them rendered especial meritorious service in connection with the War Industries Board of World War I days. Mr. Baruch has been consistently a successful advisor to those engaged in the huge task of winning the current

war. It was natural that he should seek the assistance of his banker friend and former co-worker, John M. Hancock, when asked to prepare a series of workable plans with recommendations for postwar adjustment policies.

The so-called "Baruch Report" proposes that the entire problem of postwar adjustment be handled by the Office of War Mobilization. It recommended that there should be a "work director" and an "administrator" for the distribution of surplus property established by executive order. Through the creation of two such branches in the Office of War Mobilization the authors contend there will then be no need for the establishment of any new agency to handle the problems of the demobilization of veterans or war workers or the disposition of surplus property. They recommended that the President implement the report by executive orders.

A "complete financial kit" is offered for those interested in "interim financing." Recommendations for the financing of small business "through change-over credit to be made available by the Smaller War Plants Corporation" are made. The part that the Federal Reserve Banks will play in the postwar adjustment period is stressed, because these experienced men know how vital it is that plenty of credit be available to those who are to do the job ahead.

Without going into further detail I have been impressed with the feeling that the authors of this report are of the opinion that though we may win the war we can still lose the peace unless we are prepared to meet the problems it will present. They wish America to be thoroughly prepared to cope with the wide variety of problems which will arise in the postwar era. They believe that plans must be made now so that America will not lose all that it has fought and worked to gain by winning the war. Here is a blueprint with an adequate set of specifications. When completely implemented America will have erected its postwar "house" on the everlasting rocks of common sense, initiative, and free enterprise, and will overcome the "two enemies" of all nations, "unemployment and inflation."

THOMAS M. OWEN, JR.,  
*National Archives.*

*Giraud and the African Scene*, by G. Ward Price. (New York: The Macmillan Company. 1944. Pp. 282. \$2.50.)

It would be unfortunate if the author's Carlylian past or his subject would prevent people from reading this book. For it is not only excellent, but also embraces a subject much broader than the one

figure of General Giraud. In fact, it is a unique, interesting, and undoubtedly reliable description of the entire North African campaign with its political and military aspects. The story of General Giraud is thrown in for good measure, and it makes the book only the more interesting.

Mr. Price begins his report on the liberation of French North Africa by describing how the fifth column of French patriots was organized under the very nose of the Gestapo by persons who enjoyed the confidence and sometimes even the active support of German and Vichy authorities. Everybody who reads Price's report will understand a little better one of the fundamental causes of the French political mud-dle: in order to do useful fifth column work, many patriotic Frenchmen had to pose as appeasers and collaborationists. In North Africa it became even necessary to build up a large "Vichy" organization—the *Chantiers de la Jeunesse*—in order to provide adequate strength and a convenient cloak for anti-German and anti-Vichy activities. This organization, according to Mr. Price, had a most important influence on events. According to him, our landings were originally contemplated for May 1943. Members of the *Chantiers* who worked as waiters in the hotels occupied by German commissions discovered that the Germans knew about the Allied plan and prepared to anticipate our operation by occupying North Africa in January 1943. This discovery led to an acceleration of the Allied preparations and in particular to General Clark's famous council of war with French patriots in North Africa. This was one of the most exciting incidents of the present war.

Without General Clark's daring adventure—which provided the Allied High Command with exact knowledge of the attitudes and distribution of French forces, about hidden supplies of arms and gasoline, airfields, the coastline and about all tactical-topographical problems involved in the landings—our amphibious attack on North Africa might have proven to be a very much costlier and riskier affair. Even so, German counter-preparations (combined with a pro-German attitude of a few French senior officers) enabled the Germans to occupy Tunisia very speedily and to concentrate there an army of considerable strength. On our part, the advancement of the operation had prevented us from building up our own power to the desired degree and forced us to leave the protection of rear communications almost completely in French hands—which in turn explains why the Allies had been obliged to deal with those French authorities which then commanded the obedience of the French military and civil service.

Due to the propaganda necessity of exaggerating our strength in

North Africa, public opinion here and in Great Britain was uninformed about the rather precarious military balance of power and therefore tended to misinterpret the motives of our dealings with Admiral Darlan. "From the military point of view," Price quotes General Eisenhower as saying, "I am not strong enough to impose a political solution." Besides, General Eisenhower pointed out also that he attempted "to take Tunisia with a rush," and that it was therefore imperative to end the fighting with the French as quickly as possible. Darlan, it turned out, was the only man whose order to cease firing was obeyed by the French army, and also the only man who, with any hope of success, could ask the French Navy to come over to our side. Unfortunately, Mr. Price writes, "there was a delay of four days . . . before Admiral Darlan decided to enter the war on the side of the Allies." This delay was "enough to bring about the loss of Tunis and Bizerta. If the resolution to oppose the Axis had been taken immediately, and firm orders had been given to General Barré in Tunis to open fire on any Germans attempting to land, he could have shot down the enemy aeroplanes as they approached the Tunisian airfields, and blocked the entrance to the ports."

Mr. Price also discusses the question of why the Allies did not attack Tunisia at the outset. Admiral Cunningham told the author that "he estimated that to carry troops to Bizerta would probably have entailed the sacrifice of at least one battleship, several cruisers, and very likely 25 per cent of the transports" and adds "the Navy . . . was prepared to risk it." The judgment of history might well be that the bolder course would have also been the better one. This book shows that, as it was, our North African campaign was certainly much more audacious than is generally believed. Without the victory of El Alamein it might have taken an altogether different course.

STEFAN T. POSSONY,  
Washington, D. C.

### SHORT REVIEWS

*The Unfortified Boundary; A Diary of the First Survey of the Canadian Boundary Line from St. Regis to the Lake of the Woods*, by Major Joseph Delafield. (New York, 1943. Pp. 490. \$7.50.)

*The Unfortified Boundary* comprises the diary of Major Joseph Delafield, American Agent, under the Treaty of Ghent, coincident to the first survey of the Canadian Boundary from St. Regis to the Lake of the Woods.

The volume is divided into two major divisions: The first is a succinct historical introduction by the Editors, Professor Robert McElroy and Commissioner Thomas Riggs, which details the diplomatic and geographic background of the survey. The



second part consists of the well edited diary covering the survey years 1817-1823 with the commission, although Delafield's active work did not cease until 1827. The several excellent maps and facsimiles add to the understanding of his accomplishments in securing for the United States the territory which has been of as much value as, for example, the Mesabi Range within the State of Minnesota.

Those particularly interested in the region will also find detailed descriptions of the flora and fauna.

This unusual account presents a detailed picture of the region concerned and the pleasure of reading is greatly enhanced by the excellence of the make-up of the volume.

It is a permanent contribution to the field of American-Canadian relations.

G. J. STANSFIELD,  
*National Archives.*

*China Handbook, 1937-1943*, compiled by the Chinese Ministry of Information. (New York: The Macmillan Company. 1943. Pp. 876. \$5.00.)

As stated in its preface, *China Handbook* is a comprehensive survey of the major developments in China since the outbreak of hostilities with Japan in July 1937 and is intended to serve as an up-to-date reference book on wartime China. This purpose has been ably accomplished by the compilers. The book is more, however, than a reference work on China for the years 1937-1943, since many of the chapters contain background material on aspects of China's history from very early times.

There are twenty-five chapters dealing with all phases of China's development—history, government, economics, geography, religion, education, etc.,—and which include a wealth of miscellaneous data. Publishable information about China's military organization is given and a whole chapter is devoted to the Sino-Japanese hostilities. The last three chapters consist of a chronology of major events, a Government directory, and a Chinese Who's Who. There is also inserted at the back of the book a map of China.

*China Handbook* has been planned by its compilers as a periodical publication. While much of the information in the present volume is of a permanent and unchanging nature, some of it, such as that in the last two chapters (Government directory and Chinese Who's Who) will in time become obsolete. It is to be hoped that additions to or revisions of the *Handbook* can be issued periodically, in order that it may continue to be an up-to-date reference work on China.

ELIZABETH BETHEL,  
*National Archives.*

*Our Coast Guard Academy*, by Riley Hughes. (New York: The Devin-Adair Company. 1944. Pp. 213. \$2.00.)

Not much new material has been presented by Riley Hughes in his book, *Our Coast Guard Academy*, a guide for prospective candidates, but at least he has brought together a useful combination of facts and states them clearly. He calls his volume a history and guide, discusses briefly and from a human interest standpoint the Coast Guard's place in this war, then launches into a short account of the service's beginnings and developments, apparently drawing from many of the same source documents which other writers have used.

These two chapters serve as an introduction to the account of Coast Guard schools on land and sea, from the past to the present, with emphasis on the present. From the standpoint of presenting hitherto unpublished material, this is the most valuable part

of the book, though even much of this was gleaned from *Running Light*, a cadet handbook. This little pocket handbook, weighing but three ounces, about the size of a sweetheart's letter, presents much of Mr. Hughes' material in condensed form. Besides information on the life of a regular cadet, the author has chapters on the wartime Academy programs for Candidates for Reserve Commissions and Spar officer candidates, completing Part I of his book.

ELAINE MORRELL,  
*Ensign, USCGR.*

## NOTES

Commander A. Ageton, USN, has written a valuable text for the newly commissioned naval officers in *Navy Leadership and the American Blue Jacket* (New York, Whittlesey House, McGraw-Hill. 1944. Pp. 91. \$1.75.), as has Lieutenant Mary V. Harris, USNR, in her *Guide Right* handbook for Waves and Spars (New York: The Macmillan Company. 1944. Pp. 105. \$1.25.).

*Marine and Air Navigation*, by John A. Stewart and Newton L. Pierce, presents the only one volume edition of navigation on the sea and in the air (Boston: Ginn and Company. 1944. Pp. 472 \$4.50.).

*The Infantry Journal* has reprinted two reliable reference works in Owen and Eleanor Lattimore's *The Making of Modern China* (Washington: Infantry Journal. 1944. Pp. 178. \$0.25.). The second is Colonel William T. Sexton's *Soldiers in the Philippines* (Washington: Infantry Journal, 1944. Pp. 246. \$0.25.).

Two new works are the well illustrated *The German Soldier* (Pp. 98. \$0.25.) and *Map Reading for the Soldier* (Pp. 101. \$1.00.) by Captain Arthur Goodfriend.

*The German Army* by Herbert Rosenski (Washington: Infantry Journal. 1944. Pp. 220. \$3.00.). Dr. Rosenski has almost entirely re-written his standard work upon *The German Army* and has expanded it. The four concluding chapters deal with the organization of the supreme command; the German General Staff; current ideas of the German Army and an analysis of the basic strategy of the present war.

*Requisition in France and Italy*, by Maurice V. Wise (New York: Columbia University Press. 1944. Pp. 207. \$2.75), is an historical account of the treatment of National Private Property and Services from the 1870's to the present time with emphasis on the conditions of the first war.

*Meet Your Allies in War and Peace*, by Nicholas G. Bolint (International University Press. 1944. Pp. 110. \$1.50), is a brief account with 110 photographs of 36 countries.

Bill Cunningham has written a heartwarming tribute to Captain Lishon, U.S.A.A.F., in the *Kid Next Door* (Boston: Hale, Cushman and Flint. 1944. Pp. 37. \$1.00.).

*Dictionary of Ordnance Terms*, by H. Strom and others (New York: Frederick Unger Publishing Company. 1944. Pp. 440. \$5.00), is invaluable to those interested in contemporary military terminology. The first half of the volume contains an alphabetical list of German terms, each of which is numbered on that page, with its corresponding translation in English, French, Italian, and Spanish. The second part consists of indices in each of these languages referring to the numbered word on the given page.

*Bombardment Aviation*, by Keith Ayling (Harrisburg: Military Service Company. 1944. Pp. 234. \$2.00.), presents a picture of bombing operations in this war primarily by the R.A.F., U.S.A.A.F., and the Luftwaffe.

## OTHER RECENT BOOKS

### INSTITUTIONS AND CULTURE

#### *Contemporary Scene*

*Balkan Journal, an Unofficial Observer in Greece*, by Laird Archer. (New York: W. W. Norton and Company. 1944. Pp. 254. \$3.50.)

*Revolution Comes of Age, the Use of War*, by Asher Brynes. (New York: Farrar and Rhinehart, Incorporated. 1944. Pp. 284. \$2.50.)

*Russia and the United States*, by Pitirim S. Sorokin. (New York: F. P. Dutton and Company. 1944. Pp. 253. \$3.00.)

- Turkey, Key to the East*, by Chester M. Tobin. (New York: G. P. Putnam's Sons, Incorporated. 1944. Pp. 170. \$2.00.)
- Understanding New Zealand*, by Frederick L. W. Wood (New York: Coward-McCann. 1944. Pp. 267. \$3.75.)

#### *Post-War Developments*

- The United Nations Today and Tomorrow*, by Bruce Anderson, editor. (Boston: Bruce Humphries. 1944. Pp. 172. \$1.75.)
- How New Will the Better World Be?* by Carl L. Becker. (New York: Alfred A. Knopf. 1944. Pp. 257. \$2.50.)
- Mobilizing for Abundance*, by Robert Nathan. (New York: Whittlesey House, McGraw-Hill. 1944. Pp. 243. \$2.00.)
- The Future Population of Europe and the Soviet Union; Population Prospects, 1940-1970*, by Frank W. Notestein. (New York: Columbia University Press. 1944. Pp. 315. \$2.75.)
- The Americas and Tomorrow*, by Virginia Prewitt. (New York, E. P. Dutton and Company. 1944. Pp. 292. \$3.00.)
- Germany Tomorrow*, by Otto Strasser. (Forest Hills, New York: Transatlantic Arts. 1944. Pp. 254. \$3.00.)
- Beyond Victory*, by Jerry Voorhis. (New York: Farrar and Rhinehart, Incorporated. 1944. Pp. 254. \$2.50.)

#### NATIONAL WARFARE

- Loyal Action of State Military Forces*, by Edmund R. Beckwith. (New York: Random House. 1944. Pp. 234. \$3.00.)
- Economics of Military Occupation*, by Henry S. Black and Bert F. Hoselitz. (Chicago: Foundation Press. 1944. Pp. 153. \$1.25.)
- Air Road to Power*, by Julian Bornow. (Cincinnati: Hobson Book Press. 1944. Pp. 224. \$2.00.)
- Unfinished Business*, by Stephen Bonsal. (Garden City, New York: Doubleday, Doran and Company. 1944. Pp. 324. \$3.00.)
- Iron and Steel in Britain, 1870-1930*, by Thomas H. Burnham and G. O. Hoskins. (New York: W. W. Norton and Company. 1944. Pp. 352. \$7.50.)
- War Criminals and Punishment*, by George Creel. (New York: Robert M. McBride. 1944. Pp. 303. \$3.00.)
- Studies in Government and International Law*, by James W. Garner. (Urbana: University of Illinois Press. 1944. Pp. 502. \$7.50.)
- Ten Years in Japan*, by Joseph C. Grew. (New York: Simon and Schuster. 1944. Pp. 566. \$3.75.)
- War and the Law*, by Ernst W. Puttkammer, editor. (Chicago: University of Chicago Press. 1944. Pp. 212. \$2.00.)
- The First and Second World Wars*, by Francis J. Tschan. (Philadelphia: J. P. Lippincott. 1944. Pp. 246. \$1.75.)
- American Diplomacy in Action; a Series of Case Studies*, by Richard W. Van Alstyne. (Stanford University, California: Stanford University Press. 1944. Pp. 776. \$5.00.)
- Four Years; A Chronicle of the War by Months*, by Adrian Van Sinderen. (New York: Coward-McCann. 1944. Pp. 221. \$2.75.)

#### MILITARY AND NAVAL OPERATIONS, WORLD WAR II

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## NOTES AND ANTIQUITIES

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### THE DIVISION

BY MAJOR GENERAL S. R. WASON

There are many things that go to make up that terribly efficient modern implement—a Great War army. There are good tactics, good weapons, good discipline, good commanders, a good staff, good administration and good organization; still more might be demanded.

All the famous armies of the past had most and perhaps all of these. Or perhaps all but one, for good organisation, as organisation is now understood, is a comparatively recent growth, notwithstanding the fact that some of the armies of the distant past were well organised; the Roman army in particular.

Polybius describes the Roman Army—the work of Scipio Africanus—as being divided into legions of 4,500 men, of whom 3,000 were heavy infantry, 1,200 light infantry and 300 horsemen: cohorts were about 500 and maniples 120, corresponding with remarkable fidelity to modern battalions and companies, and the legion to the modern division.

History had to pass through many centuries before anything so orderly was again seen. There were no divisions and brigades till the eighteenth century. All organisation was on a unit, that is regimental, basis. In all armies, there have, generally speaking, always been two types of organisation.

First, there is the regimental basis. Regiments are units composed altogether of men of one arm; that is all infantry, in which case the term battalion is used, cavalry or artillery—or in these days tanks.

Secondly, there is the formation basis. The modern permanent formation consists typically of so many infantry, cavalry or tank battalions or regiments, with a proportion of artillery, sappers, medical units and administration services.

The regimental organisation came generally from the feudal, tribe or clan system; its beginnings were always territorial. Its size varied from 500 to 1,000 men, depending on the “arm” in question and the type of warfare of the day. Some such organisation was found in every



army; the size of the units was dictated by the number of men one man could actually lead on the battlefield.

The formation organisation was a very different matter. In the battles of the distant past the marshalling of the battle array was an important ceremony. Both sides equally reckoned on having time to do this. It was Carnot who broke the rules of the game. Napoleon developed his instrument. He had no doubt that superiority of force at the decisive time and place, be that in the strategic sense on the battlefield, or in the tactical sense, on a corner of it, was the first principle of war, and that a higher degree of organisation than that of his opponents was the first step towards his goal.

Much has happened since then and, if the classic battles fought by the masters of the past still remain classics in their sphere, the deeds of more recent times completely outshine them in their feasts of movements, concentration and control of troops, before, during and after the battle, and it is for this end that organisations are designed. The principle of the organisation of the formations of an army are universal, for they arise from fundamental needs.

The first principle is suitable articulation. The dispersion of the modern battlefield increases the necessity for organisation of the army many times. The object of organising armies of whatever size into formation are then to effect the purpose of control in the theatres of war and on the battlefield: to make it possible for the commander, having decided on his plan, to get his orders carried out in accordance with his wishes with the utmost despatch and certainty. And, having regard to the chances of war, to be able to communicate the essentials of his plan to his subordinates and leave it to them, always under modern conditions far out of his sight, latitude in carrying it out. From this comes their first principle; every commander must issue his orders direct to as many subordinates as he conveniently can; but the number with whom he can deal personally, and there must be personal contact, is strictly limited. For during the progress of the battle he cannot at a distance expect to be able to follow, and when required influence, the action of more than a small number of subordinates.

The problem to be solved is that of the permanent and temporary associations of the various arms. The basis of the permanent grouping must be that most suitable for the most common, that is the most frequent, case. Since for every day of attack there are, say, twenty days of defence, needs in defence may form the basis for the infantry division.

This basis of necessity may be tempered with another factor, that of convenience; so long as it does not dominate. This is the principle of grouping. The normal arms of the army are grouped in formations in the proportions required in defence; the bulk of the purely offensive arms, or arms for special purposes, may be grouped in special formations.

The third principle is dictated by the system of supply of food, fuel, ammunition and other necessary equipment, and of administration, such as care of the sick and wounded. At some point in the organisation of formations, units carrying out these functions must be provided within the formation itself. This is the principle of association of combatant and administrative units.

These are the three principles which call for the grouping of the more important and more numerous arms, and the more important administrative services within the permanent formation. The first principle governs the necessity for permanent grouping. The two others help to guide the decision as to what point the articulation of the army the permanent association should take place.

It is clear that as far as tactical grouping is concerned the type of war that is envisaged, and the type of country in which fighting is likely to take place, are important factors. But in reality these factors do not play as important a part as might be expected. For it is permanent organisations that are concerned, and the armies of all the great Powers had to be prepared to fight in a great variety of different types of country, and to fight very different types of battles. As far as World War I and the present war are concerned, any country that based its permanent organisation on a forecast of any special type of operations would have been badly served thereby.

Now if the commander of an army is to get his orders carried out as has been described, a point in the articulation of the army is eventually reached which is the lowest at which the subordinate commander has been under him a force of all arms. In all armies the same conclusion has been reached.

This permanent formation of all arms must be of such a size that it can conveniently be controlled by one man. This being so it is clear that under exceptional conditions a larger or smaller force than is normally accepted, that is the "division," will sometimes be used or suggested.

Thus facing one problem above all others, a continental war on a huge scale, the French and the Germans both found it convenient in 1914 to have the corps as their basic permanent formation; the division

remained the lowest permanent formation of all arms. At that time the British with far smaller forces, had no higher permanent formation than the division.

The advance of mechanisation raised this question acutely. If all armies were to be fully mechanised, the opening stage of war was certain to be a phase of very quick movement. In this case a division was thought to be too large a formation for the lowest permanent self-contained formation on the grounds that one man would be unable to control it; an enlarged brigade (or in the continental terminology regimental) group would probably have been advocated. But this stage of evolution had not been reached at the beginning of the war, for the French and German armies were still both predominantly horse-drawn. By the time that armies were fully mechanised the forces engaged had become so enormous that reversion to a permanent grouping on a lower basis than a division was not to be thought of.

There are two important secondary reasons for these permanent organisations. The first is the valuable assistance that such an organisation can give as a framework for the army in peace and in war. Some such help is necessary for the calculation of the numbers of officers and men by ranks, both for the original establishment and for reinforcement. Similarly it is necessary for calculation for the provision of every item of equipment, again both as an initial issue and for replacement as required.

The other secondary reason for permanent formations is for convenience of training in time of peace. It is important that units of the different arms should be associated with each other in peace-time; it is desirable that such association should be permanent; by this means all ranks can be brought to learn their respective roles in co-operation with the other arms all the time, alone never. It also has the advantage that commanders and staffs are continually practised in the handling and administration of not only a mixed force but one of a fixed constitution.

To return to the factors governing the size of the lowest permanent grouping, which also becomes the basis for the organisation of the army as a whole. Handiness for administration is an important matter. It is convenient that both the supply unit and the medical service unit should be of such a size that they can each be controlled by one man; and that is of a size certainly not greater than that of combatant units.

If the Corps were the basic permanent formation, the proportion of supply and medical personnel now found to be necessary would be

in both cases of the order of a brigade (continental regiment). This would be a clumsy organisation for mobile operations. From the administrative point of view control of movement in the average country in which fighting is likely to take place—a difficult matter to assess is true—depends upon roads, and on bridges over the river.

The Headquarters of a permanent formation has to control the movement of its tactical and administrative units. If the permanent formation is as small as a brigade it will often be in difficulties from the necessity for sharing roads with other formations; if it is as large as a corps, control is made easy in the case where there is ample time to issue orders, but in this the more hurried, and hence probably the more important phases of the campaign—rapid advance or withdrawal—such control is liable to break down. Whatever the size of formations, control sometimes breaks down. The results are much more serious in large bodies of men than in small.

There is so much intercourse between nations and the individuals of nations these days that it is difficult to trace the degree to which nations have borrowed each others ideas. Nevertheless it is safe to say that the French revolutionary armies set the standard in organisation till the rise of Prussia under Bismarck.

After that time the thorough methods of the Prussians recommended themselves, and staff organisation, training, and peace time organisation, such as preparations for mobilisation, organisation of reserves and reserve formation, were taken from the Prussian model. Prior to 1866 the Prussians introduced the permanent formation as the framework of the army in peace in preparation for war, and the incorporation of administration services into the division.

The tempo of military changes has, however, increased out of all knowledge. The effect of the air is the largest single new factor. Both tactically and administratively its results are all pervasive, and it is not yet possible to appreciate them fully. This air factor, problems of mechanisation, of feeding the soldier, of road destruction and repair, of crossing rivers, of dealing with and treating the wounded, and many others, together or individually, may bring about the necessity for changes.



# LESSONS OF THE NORTH AFRICAN CAMPAIGN

BY MAJOR JOHN NORTH

In this highly mechanized age, it will not be surprising if the present war goes down into history as essentially a war of transportation, by land, air, and sea, with the sea continuing to hold its ancient priority.

Without the North Atlantic life-line to America, Britain could not have continued the war against Germany after the fall of France; and Germany would have been in a position to turn east with her rear absolutely secure. Again, without command of the South Atlantic life-line, by way of the Cape of Good Hope, to East Africa, Egypt, and the countries bordering on the Indian Ocean, the Italian Empire would have remained immune from attack and the old German "drive to the east" in the direction of Bagdad would have become a practicable operation of war.

Nevertheless, although this southern route was never seriously imperilled by submarine or air attack, the route itself represented an almost intolerable strain on Allied shipping. War supplies from Britain had to be transported fourteen thousand miles before they reached the base ports in Egypt; whereas the direct route through the Mediterranean would have cut down the mileage to the base of the triangle. Supplies from both Britain and America dispatched to the Persian Gulf were subject to the same wasteful limitations. All such convoys had to face the perils of submarine and air attack in their passage south, and at a time when U-boat warfare was still a prime factor in Germany's war strategy and a determining factor in the outcome of the war in the west, the clearing of the North African coast-line, as a preliminary to the re-opening of the Mediterranean route to Allied shipping, was a major strategic objective from the transportation angle alone.

The war in the Mediterranean was, therefore, only superficially a struggle between land armies for victory or defeat on the field of battle: the successive campaigns undertaken by Allied armies were designed to enable them to build up sufficient strength to reach out to strategic objectives in the so-called German penetration towards south-west Asia.

Thus, by any standard of comparison other than that of the actual number of land forces engaged, the Allied operations in the Mediter-

ranean were of the largest magnitude. In particular, the distances involved are only to be compared with those obtaining in the Pacific theatre.

A tank produced in the United States or Britain could only nominally be described as a weapon of war. Months must elapse before it could hope to get into action; and the labor absorbed during the various phases of its transportation to the actual fighting zone was probably no far short of its man-hours of production: all modifications necessary in the light of battle experience could only be undertaken by base workshops owing to the enormous time-lag between design and employment. Again, every aircraft flown in the Middle East theatre of war had first to survive a sea journey to West Africa, and thereafter fly across the breadth of Africa over a route along which every airfield in use had to be constructed after the outbreak of war.

The air and land striking forces ultimately assembled in the Middle East had to be built up not only under extreme difficulties of transportation: they had to be built up from virtually zero. Britain's strength in the Mediterranean had been founded on sea power alone; and Italian and German air power were quickly to prove that a modern battlefleet—even with the support of aircraft carriers—cannot operate with even reasonable impunity within range of hostile land-based aircraft.

This, indeed, may be regarded as the first lesson of the Allied operations in the Mediterranean; and in the evacuations from Greece and Crete—following on land operations which were undertaken only as a part of a world-wide delaying action when German war power was at its maximum potential—the British Navy was called upon to disregard this lesson at great cost to itself and to those Allied merchant ships which had to share the dangers of virtually unchallenged air attack.

If air power was a determining factor in the eastern Mediterranean, it was not less potent in the western Mediterranean, when British and American forces undertook the greatest amphibian operation in history in the November of 1942. German reinforcements were rushed to French North Africa by air; the actual landing places on the North African coast had to be selected at points outside the range of intensive air attack; the subsequent five hundred mile advance into Tunisia had to forego effective air cover; and the German air force—operating from excellent landing grounds a few minutes' flying time from the front line—continued to command the passage of the Sicilian Straits—a situation that was not fully resolved until the Sicilian campaign of the following July.

Thus the first necessity behind all Allied land operations in the eastern Mediterranean was the capture of enemy airfields; and in the mountainous terrain of French North Africa, the provision of forward airfields was always an engineering task of first priority. It should further be observed that, throughout these operations, the German had only one flank to protect, with almost illimitable space for escape and manoeuvre: not until he was driven into the Tunisian salient of Cap Bon—driven there from the borders of Egypt over a distance of some two thousand miles—did he find that hitherto friendly element, the sea, the final cause of his complete annihilation as a fighting force.

From that moment the Allied line of communication to possible theatres of war in southern Europe was shortened, almost overnight, by some eleven thousand miles—the distance, by sea, from Britain to Egypt being three thousand miles as against fourteen thousand by the Cape route. No major campaign in history has ever been fought at such immense distances from its supply bases.

It will be realized from the foregoing survey why the land fighting was such—and the lessons therefrom—are no more than incidental to a vast strategic picture in which the land forces, while playing a vitally important role, were called upon to carry to a decisive conclusion a series of campaigns which, in their deeper aspect, were essentially sea and air operations. For this reason, comparisons with full-scale land battles of the past are likely to be deceptive: the sum total of the war effort, in terms of men, man-hours, ships, and munitions, behind the three and a half years of hard campaigning in the Mediterranean was more than comparable with any major campaign in this war or the last.

These campaigns, indeed, were not merely fought over distances to be measured in terms of thousands of miles: they were fought through extremes of climate, ranging from periods of torrential and nearly continuous rain which made the movement of tanks and vehicles almost impossible off the roads, to months of semi-tropical heat; they were fought over startling contrasts of terrain, varying from desert spaces to very enclosed and mountainous country with a minimum of roads and negligible railways; they were fought with a variety of weapons, which themselves passed through successive stages of development; they were concluded with one of the most dramatic surrenders in military history—when a German army, numbering nearly two hundred thousand men, well armed and well supplied and in full fighting spirit, laid down its arms.

A prime significance to be attached to this wholesale surrender is that it was preceded by the winning of undisputed command of the

air by Allied aircraft; but it is probably of even more significance that the battle provided a situation in which mechanized forces could be used with a perfection of technique which could never have been applied under less favorable circumstances. Until this final engagement, a succession of tank battles had been fought from the borders of Egypt to the fringe of French North Africa—battles that perfectly lived up to this bleak description and evoked obvious comparisons with naval battles; and the tanks themselves had been transformed from comparatively ineffective armored fighting vehicles into highly efficient machines elaborately designed to overcome the peculiar difficulties of desert warfare.

In these earlier battles the Allied machines had been out-gunned and out-armored by the German models. In later battles, the arrival of adequate anti-tank guns—on both sides—virtually nullified satisfactory tank action; and at this stage in the development of tank warfare, tank tactics took the form of luring one's opponent on to one's own anti-tank guns. But, in this final battle of the whole African campaign, the Allied tank was probably superior to the German—in mobility, in gun-power, and in armor; it was available in quantity; and the terrain was suitable for tank warfare.

Thus, possibly for the first time in this war, the use of tanks was able to achieve the theoretical ideal of striking at the *brain* of the enemy—that is, they were flung into the battle, not to fight enemy tanks, not to kill enemy troops, but to cripple the enemy organization by ripping asunder the whole fabric of his fighting machine. During this battle every available tank thrust, in two powerful columns, direct for Tunis and beyond; these columns tore their way into the vitals of the enemy; and a hitherto redoubtable German army, within the space of a few hours, ceased to be a *machine*—fighting or otherwise.

It is significant that the German commander-in-chief was unable to accept one of the conditions of surrender—that he should give an order that none of the German war material was to be destroyed—because, as he confessed, he had no means of getting any such order into general circulation. If, therefore, it be asked, "Why did the German army in Tunisia surrender?" the answer would appear to be, "Not because they had their backs to the sea, or because they lacked food or oil or water or equipment"—although it should be noted that their transportation problems were immense as a result of the Allied daylight command of the air—"but because a shattering blow had been delivered at the mainspring of any army (and more particularly, perhaps, of the German Army)—the directing brains at the top."



It has been remarked that this wholesale surrender had been preceded by the undisputed command of the air by Allied aircraft, thereby ensuring for the Allied land forces freedom from hostile air reconnaissance and ensuring the maximum possibility of surprise. Thus the employment of the Allied air arm in the later phases of the Mediterranean land operations had developed far beyond the conception of "army co-operation" that envisages the employment of a few specialist squadrons to assist a land force for a particular operation. The commanders of the three services—for the naval forces figured prominently in the supply picture—worked to a combined plan; but, within the framework of the plan, each commander-in-chief continued to control his own force as an independent entity.

It may indeed be argued that an air force can best assist a land by securing for it the greatest possible freedom for land action—such assistance as it can offer by the attack of ground targets being a secondary consideration; for experience in the Mediterranean would appear to suggest that direct air support—that is, the attack by air forces of targets having an immediate effect upon the action of friendly land forces—is of less value, and probably more uneconomical, than indirect air support—that is, air support that involves action against the approaches to a theatre of war, such as sea, rail, and air communications, and, in particular, against base installations.

In the long-term view, indirect air support may, in its turn, be overshadowed by genuine strategic bombing—that is, bombing which is intended to realize a specific purpose that fits into the grand strategy of a war, and not to perform an ancillary and complementary role in operations by land or sea. Nevertheless, a firm ruling on the whole question of direct as against indirect air support must depend on an enemy's ability to make use of the arts of camouflage and of dispersion: a well dispersed road column, even in headlong retreat, is not necessarily a highly vulnerable target from the air—particularly if the vehicles have their own anti-aircraft protection and are able to disperse off the road.

Occasions will always arise when, at some critical moment in a land operation, every available aircraft—even long-distance types—may have to be utilized for direct air support, at the expense of all considerations of economy of force.

One undoubted lesson of the African operation, from the air aspect, is that air forces in support of an arm must remain under centralized control. Only if control is centralized on a high level can the necessary concentration of force be obtained. Experience has constantly shown

that, if the air effort is split up into small packets, the effect is almost negligible.

In general, it may be suggested that land and air co-operation cannot hope to attain that high degree of co-operation which is imperatively necessary between tanks and infantry. In the attack, tanks and infantry are complementary to each other, and the effectiveness of any assault in which both are engaged is as much dependent upon the methods and capabilities of the other co-operating arm as upon one's own.

Tanks, for example, cannot hope to dominate an objective—that is, to remain on an objective in order to neutralize the enemy opposition: infantry must arrive in good time to mop up and to take over, if excessive tank losses are to be avoided. Such results can be obtained only when both arms work on a common training doctrine, and when both infantry and tank commanders are not merely familiar with one another's methods but are personally known to one another.

On this whole topic it may be of interest to note that, in Africa, it was the German as well as the British tank practice to stop to shoot, whenever possible. Nevertheless, the tank is something more than a self-propelled gun: its unique and essential characteristic is its power to combine fire with movement. Again, experience showed that the temptation to disperse armor of an armored division, in an attempt to insure against reported or imaginary threats to its flanks, needs to be strenuously resisted. The armored drive on Tunis, already discussed, admirably illustrates the fact that an advance with every available tank, gun, and infantryman on the same axis will have such a devastating effect on the enemy's communications that any such threats that develop will probably soon disappear.

Thus good tank doctrine can be summed up in the phrase that tanks should be used in mass for decisive blows. The alternative practice, often in evidence in earlier Libyan campaigns—the use of tanks in “penny packets”—often resulted from an understandable if unwise desire to lend assistance to overworked infantry, operating over wide fronts and in isolated localities.

The administrative picture presented by the Mediterranean campaign is one of extreme complexity, because of the extended fronts, long lines of communication, frequent regrouping of forces, fluctuating fortunes in local engagements, and variety of terrain, the whole series of campaigns thus producing experience of nearly every form of supply problem—and demanding the greatest possible administrative flexibility.

Owing to the vulnerability from the air of roads and railways—particularly at bridges—forward dumping was necessary on a large scale in order to build up reserves in those areas where an offensive was to be opened or where the front was temporarily stabilized. Additional reserves were held in divisional and corps dumps farther in rear, and the soundness of this policy was demonstrated—even in a war of movement—whenever, in the later stages of the fighting, the Germans put in a large-scale attack: in the last of these attacks, although British troops were often temporarily cut off and the expenditure of ammunition was considerable, no formation was ever short of ammunition, nor was it necessary to impose any restrictions on its expenditure.

In French North Africa, railway sabotage—to which French Vichy officials contributed—sometimes caused a complete stoppage of traffic for hours on end, at a time when the system itself was already overloaded and road transport had largely to depend on unmetalled roads running through hundreds of wadis crossed by small bridges, the majority of which were insufficiently strong to carry the heavier military loads and lent themselves to simple demolitions.

In both French North Africa and in the Western Desert, many units and sub-units had to be prepared to defend themselves against unexpected enemy infiltration; in an emergency, clerks, cooks, batmen, and drivers had to be prepared to fight with small arms—and even with their hands.

It is on record that one heavy anti-aircraft battery commander had on one occasion to lead a bayonet charge against troops of the Hermann Goering division.

The incident illustrates the old story: that no one in a theatre of operations can nowadays regard himself as a specialist or a non-combatant. In modern war there are no "safe" zones: for the greater part of the time in Africa even a solitary vehicle, miles from any fighting zone, would have its "spotter" to watch for German aircraft.

The administrative problems in French North Africa were very different from those in Libya. In French North Africa the main problem was the rapid accumulation of reserves of stores of all kinds in an overseas theatre where the local resources were almost non-existent, where limitations of shipping severely restricted the number of vehicles that could be landed in the early stages, and where the paucity of roads and the dilapidated condition of the few railways made any large movement of stores a matter of great difficulty.

In the Western Desert, apart from the extreme length of the sea lines of communication with the home base, and apart from the same

necessity of building up supplies, the far longer lines of land communication provided a problem in themselves. Tripoli—which is itself more than five hundred miles from Tunis—is nearly two thousand miles from the base ports of Egypt; and not until this port was captured—in the last week of January 1943—were its port facilities available to the British Eighth Army in order to build up an advanced base. In French North Africa the British First Army had to solve the problems of maintenance over beaches until suitable ports could be opened up.

From the operational and training angle it is an interesting fact of history that almost every attack carried out by the British Eighth Army on its two-thousand mile march from Alamein to Tunis was made at night, thereby overcoming one of the eternal problems of desert fighting—a problem hardly less acute than that of water—lack of cover. From the purely operational point of view it may be said that the dominating contribution of the minefield in the conduct of a long-fought delaying action achieved due recognition for the first time in modern war.

The lessons learned by Allied arms in the desert spaces of Italian North Africa and among the mountains of French North Africa were dearly bought in the hard school of experience—and in the best possible school of experience—the actual battlefield.



# THE FOURTH ARM

BY LIEUTENANT SAMUEL G. MYER

*The most recent experience has demonstrated that efficient service of military lines of information is indispensable to successful strategic and tactical operations. The organization charged with this service has become so intimately associated with strategic marches and tactical movements on the battlefield that it must be in the future regarded as an integral part of the combat force,—a fourth arm, so to speak— . . .*

LIEUTENANT GENERAL ARTHUR MACARTHUR, 1908.

The gasoline motor in the plane or tank is visible and dramatic, electrical energy in a black wire does not seem to inspire anyone. Electrical communications however have probably contributed more to the art of war in the last fifty years than has the gasoline motor; but failing to capture the imagination, they seem incidental in military thought and are not fully understood or exploited. Like nerves, their effect is subtle and difficult to estimate; but, just to take one example, the German failure at the Marne in 1914 can be traced in a large part to the failure of their signal net.

The plan for the invasion of France outlined by von Schlieffen and developed by his successors contained no detailed provisions for signal communications. Signals on the German General Staff were handled by an infantry officer with no previous experience! No large scale arrangements had ever been attempted on maneuvers. Influenced by the Japanese success in Manchuria in 1905, the German army went into the field with radio and telephone exclusively; and no provisions for alternate means of communications or even telegraph. Some corps, cavalry in particular, were expected to rely on radio alone with a transmission rate of about 15 messages an hour. To top this folly, the method of cryptography used was slow, cumbersome and unreliable as the loss of one letter in the complicated series would make the message incomprehensible; and incidentally led to numerous repeats, some, to the delight of the French, *en clair*. The time for encoding and decoding averaged two hours.

Technical efficiency was not improved by the general contempt throughout the army for the signal service; or by that school of thought which held that the handling of wire and radio was in no way different from the handling of guns. As a result, officers were constantly rotated and no efforts were made to secure trained civilians. Troops on the march cut wire for use as rope (in Libya, the Australians are reported to have done likewise), poles were used as firewood, and some commanders, believing in rigid march discipline, required the

signal men to march with the troops. Wire laying being impossible under such circumstances, the signallers had to retrace their steps each evening to finish their work.

Finally, the German experts on communication were not prepared for the coming campaign. They had no diagrams of the Belgian or French communications; nor had they made a study of foreign equipment. There were not adequate supplies of wire or field equipment and as no uniforms were provided for the signal reserves, these men were sometimes shot as spies with no questions asked.

The first failure of this communications system was in the attack on Liege, important not only as a strong point, but also as being in the path of the approach march of the 2d Army. On August fourth the attack was begun, on August sixth the forts were penetrated, on August seventh Liege itself was entered by the Fourteenth Brigade but on the same day the report sent back to OHL and the 2d Army was that the forces were still outside the city and that General von Emmich's (commander of the attacking army of the Meuse) position was unknown. Three days later the true disposition of the German forces was finally uncovered, but by this time minor modifications had been made in the plans of the 2d Army. It was almost by chance that the entire advance of the Army had not been held up for four days. Had the news been delayed one additional day, there might have been even more serious complications. Telephone communications were ordered *for the first time* at noon on the tenth of August. Ludendorff is credited with saving the day. Had adequate communications been available for proper coordination of the attacking forces and had reports been available for all the forces concerned, there would have been a considerable saving in both time and manpower; and the victory would not have been in doubt.

Apparently this weakness did not concern the high command, for no steps were taken to correct any of the deficiencies; and the next period, from August 10th to 25th is one of growing confusion on the German side. This period includes the Battle of the Frontiers with two definite clashes at Le Mons and Charleroi. As the armies moved forward, the telephone grew more and more unreliable since in a day the troops moved approximately twice the distance which could be covered by standard wire construction in the same length of time. Field wire was good only for about twenty-five miles, and as the radio was frequently overcrowded with messages or not functioning, OHL often was without news from the front for one or two days at a time; the 1st, 2d, and 3rd Armies frequently were out of touch with each

other for similar lengths of time (for example, on the 23rd, the 1st Army received no orders from the 2d which had been controlling it since the 18th); and the corps failed to contact army for as much as a day at a time. Intelligence or orders received from OHL were as much as two days late even after a motor transport system was resorted to. In contrast with the British system, the latter was slow and unreliable. As the campaign progressed, radio became the most reliable means of communication; but too few sets had been provided and the stage of development was not sufficient to be equal to the task. In such straits the textbooks had anticipated the use of airplanes, but there are few flights on record.

A typical post war comment on the activities of this period is contained in a report by Lieutenant General Schniewindt to the Reichswehr Ministry. He states that due to the impossible signal arrangements on August 23rd, the IV Corps, 1st Army did not receive orders to advance further until it had already halted.

Thus it could no longer operate against the enemy's flank, which very likely would have resulted in the destruction of the enemy.

It is the General's contention that these signal arrangements prevented an "annihilating blow" against the Fifth French Army and the British Expeditionary Force.

At Le Cateau, the signals were as poor as at Mons. On the 30th, von Kluck turned south to exploit the successes of the 2d Army without being able to consult OHL. The radio failed on the night of the 31/1 for six hours. Reports and orders continued to arrive one and two days late, or after dispositions could not be changed. Information was received only through intercepting broadcasts from neighboring troops. On the 3rd of September, the 1st Army was ordered to the rear and flank of the 2d, but as it was already in advance of the latter, von Kluck thought it best to push on past Paris. There was no chance to consult. No one had a distinct idea of conditions anywhere except on his immediate front, and the intelligence officers who began to travel from army to army found themselves overtaken by events. Reliance was placed more and more upon the motor cars which were slow and by no means sure. OHL ordered von Kluck to face east on Paris after he had passed it. This naturally he failed to do.

The culmination of all the uncertainty and tenseness came on the 5th of September, and the crisis continued until the 9th. On the former date the French and British turned on their attackers. The IV Reserve Corps came into contact with advance units and fought the beginning of the Battle of Ourcq, but as signal communications were not functioning, the first news of this reached army headquarters late at

night after the orders for the sixth had already been given. The next night, due to the slowness with which the liaison officers moved, two Corps (III and IX) found themselves with conflicting orders. The tangle only became more complicated as each commander tried to avoid it. The result was a falling back to the Petit Marne. Lt. Col. Hentch's famous trip on the eighth and ninth was merely another link in the chain which events had steadily forged. Von Bulow is claimed to have ordered the retreat in the belief that his victorious troops were defeated. Three hours later the news of their success reached him, but the die had been cast. Earlier in the week, General von Hausen, lacking adequate information, had split his 3rd Army between the 4th and 2d. Had he been able to concentrate it once again, he might have influenced the decision, but signal communications would not allow it.

Such are the most important incidents which could be multiplied by tactical examples without end. It can be, and has been claimed that the German defeat at the Marne was due to the failure of the German signal communications.

Signal arrangements should be regarded as an integral part of the combat force, a fourth arm, so to speak; but too often they are relegated to the tactical sphere. El Alamein is, perhaps, an example of their best use; but what is really required is imagination such as displayed by General Fuller, who, in 1919, would have left German signal communications intact during a break-through to spread confusion through counter-orders and hysteria. When so used and understood signals cease to be a drab and technical method of transmitting reports; instead they become another means of attack and defense; a method of controlling mass and movement; a way to reduce time and space; a means to the objective; an aid to security, surprise, concentration, cooperation, and coordination. Tactically and technically the Signal Corps fulfills our expectations. Strategically we are barren.



# GROUND: THE DICTATOR OF TACTICS

BY BRIGADIER J. G. SMYTH

Ground and the characteristics and armament of the enemy are the main factors which dictate tactics, formations and weapons employed in modern warfare. The power and range of modern weapons has increased the importance of ground. Every little feature and undulation has now to be considered and used to the best advantage.

In attack we have to make the best possible use of the ground which lies between us and our enemy in order to approach him with the minimum loss and the maximum surprise. In the defence we use ground and obstacles to make the enemy's approach as difficult and costly as possible so that the position may be held economically and the maximum number of men kept in reserve for counter-attack.

Whenever possible a commander chooses his battleground so that it favors his own forces, and the particular weapons in which he places the greatest reliance. When the Germans attacked France in May 1940 they relied on their splendidly trained and equipped Panzer divisions for the quick and overwhelming success they had planned. They chose their point of attack so that, after the preliminary break in by the infantry, their Panzer divisions could go through and operate in country suited to the characteristics of armored fighting vehicles and mobile mechanized columns.

Two years later, in North Africa, there was a good instance of the use of ground in defence. To stem Rommel's threatening thrust into Egypt, General Auchinleck took up a strong defensive position at El Alamein with the sea on his right flank and the almost impassable Qattara depression on his left. This proved a bulwark against which Rommel beat his head in vain and behind which the British forces were organized for the great counter-offensive which eventually freed North Africa entirely from all Axis troops.

Whenever the battle front includes vast expanses of country served by adequate means of communication, the side which is in a position to take the initiative has several alternative choices of ground. But when a campaign is fought in a restricted area, such as the Italian front today, little choice is possible and the Germans there have to be attacked on excellent defensive ground of their own choosing.

Also we have to remember that the big obstacle which has confronted, and is confronting, the Allies in almost all their operations

in the west is the sea, which, since it has to be traversed to get to grips with the enemy, must be counted as "ground" just as much as an expanse of desert.

So important has ground become in modern war that, not only do we try to fit the ground to the man but we take pains also to fit the man to the ground—by means of camouflage.

In mobile operations commanders of all grades often have to stage attacks or counter-attacks within a limited time. In such circumstances it is often forgotten that ground is of the greatest importance to the most junior commanders—the platoon and section commanders. To them a sunken road or a hidden depression may make all the difference between success and failure—and it is upon such small actions of subordinate commanders that the outcome of the battle often depends.

Whenever time is limited, therefore, higher commanders must ensure that, whoever else goes short of time, company and platoon commanders are given sufficient time to enable them to make an adequate reconnaissance and give their orders before committing their men to action.

There are four basic and distinctive types of warfare where the ground, to a very great extent, dictates methods and tactics. These are

Desert Warfare  
Mountain Warfare  
Amphibious Warfare  
Jungle Warfare

The wide open spaces of North Africa might have been considered ideal offensive country for mechanized forces. But when we come to examine the problem in greater detail we find that it was not quite so favorable as it appeared.

There were two limiting factors—lack of roads and difficulties of water. There were also, of course, difficulties of petrol. But petrol was only a difficulty because of the lack of roads. Britain's forces had plenty of petrol—because they had command of the sea. They were continually in difficulties in getting sufficient petrol forward because there was only one main road. The Germans had the same difficulties but their petrol trouble went further back. Their petrol supply broke down eventually because they could not get it across the Mediterranean and up to their troops and aircraft in sufficient quantities in the face of Britain's great sea and air superiority. In the end this proved the most decisive factor in the Allies being able to finish the campaign in such swift and overwhelming fashion.

Water was an ever-present problem, which arose directly from the type of ground Allied troops were fighting over. There was a limited local supply in the desert and most of it had to be brought forward by truck. The desert is a thirst place to fight in—both for men and vehicles. The men learned to do with a very small ration of water. Without water, however, the tank and automobile come to a full stop. Therefore, lack of water and shortage of roads always introduced severe administrative problems and tended to detract from the speed and scope of the attack. They also limited the range of wide turning movements round the open southern flank.

Thus the advantages conferred by the ground on the side with superior numbers were not so real as they appeared. Britain's forces were however enabled to use the ground in one important manner to their own very great advantage.

In that type of country there is a wide choice of air landing grounds. Britain had complete air superiority during the latter stages of the campaign and, by leapfrogging forward from one advance landing ground to another, constant air domination was maintained. In that type of country, with visibility so good, communications so limited and cover from air so lacking, Britain's air superiority was a decisive factor.

For the actual ground operations the desert provided a good deal more cover than was apparent from a cursory glance. The movement of mechanized vehicles was difficult to conceal by daylight owing to the dust but tanks in "hull down" positions were often extremely difficult to pick out. The desert was ideal for putting down concealed minefields quickly—a type of warfare at which the Germans were adept.

Mountain warfare is a type of fighting in which British and Indian troops are more practised than any in the world. The tangled mountain mass of the Himalayas, peopled by the hardy Pathan tribesmen, has been the scene of many tough engagements and is a wonderful training ground for any troops.

Mountains make real defensive country, and have often enabled a few well hidden riflemen to hold up a brigade. We have seen this fact illustrated in the last few months' fighting in Italy. Although nothing like so formidable as the mountain ranges of the North-west Frontier of India, the Italian Apennines have introduced many of the same limitations to the attacker.

But the type of warfare where ground favors the defender even more than in the mountains is amphibious warfare. Here the attacker in order to get to grips with the enemy, has to go from ground to sea

and then back to ground again.

The actual attack on the hostile beach has to be carried out in specially constructed assault craft designed for that one operation alone and suitable for no other. It is as though one were attacking a position on land over such difficult ground that special vehicles had to be used for that one bit of ground only.

There are two particularly difficult periods for the attackers. The first is when the assault craft are approaching the shore. It is then that every advantage of ground is with the defender. Shoals, sandbanks or uncertain tides may ground the landing craft too far out where they are at the mercy of the fire of the defence. Even if the landing craft are beached successfully the attackers are most vulnerable at the moment of disembarkation and they may not be in the best physical shape if the crossing has been rough.

The second difficult period for the attacker comes several days later when the reserves of the defence are moving in to counterattack complete with all their tanks and guns, while the heavy equipment of the attacker is still being landed. Of all known operations of war amphibious operations are the most difficult and depend most on careful planning for their success.

And finally we come to jungle warfare. Here the ground is most favorable for offence on a broad front with superior numbers. There are seldom any flanks in the jungle and no obstacles which cannot be crossed. The only thing which limits the breadth of the front and the numbers that can be employed is communications.

The defence is continually in difficulties in the jungle. The attackers can infiltrate unseen and there are seldom any open areas of ground which can be swept by defensive fire. In fact jungle warfare is closely akin to night operations. To the highly trained individual fighter, and the junior leader, the jungle offers great opportunities for raids, ambushes and deep patrols. To the untrained and inexperienced man the jungle is a nightmare.

And now I come to the weapon of the future to which all ground is alike—aircraft. Already, even in jungle country, the whole conception of past tactics has been revolutionized by the dropping of supplies by air and by the use of airborne troops.

Many of the difficulties of the approach in amphibious warfare will be overcome by the increased use of airborne troops.

Deserts, mountains, sea and jungle offer no insuperable obstacles to aircraft and in the air weapon we see the great leveller of ground obstacles however difficult they may be.



# THE CORPS OF THE JANIZARIES

BY ARTHUR LEON HORNIKER

Military annals reveal few organizations whose history is more extraordinary than that of the corps of the Janizaries, which for nearly five hundred years constituted the backbone of the armed forces of the Ottoman Empire. Not only was it the first true infantry of modern times, but the method by which its ranks were filled was unique. Only in our own day is it possible to observe the creation of a troop the underlying principles of which resemble even partly those of the corps of the Janizaries; this troop is the élite guard of Nazi Germany. But still more interesting than the military organization of the Janizaries were the social and economic aspects of the corps.

Above all, the history of the Janizaries faithfully reflects the whole history of the Ottoman Empire. From the founding of the corps in 1330 to the time of Sulaiman the Great, the Janizaries, unopposed by armed forces equally well organized, disciplined and valorous, were able to carry the Turkish standards into the heart of Europe. When, however, after Sulaiman's reign, the discipline and efficiency of the corps began to decay, the Empire entered upon the path to its downfall.

Yet, while the very name of the organization has become a figure of speech, but little of its history has been known to the English speaking world.

## THE ORIGIN OF THE CORPS OF THE JANIZARIES

What was the origin of the corps of the Janizaries? Two factors led to its creation. On the one hand, there was the political factor, the character of the Ottoman Empire with its expansionist policy, and on the other, the military factor, the urgent need of an organized and well disciplined infantry which alone could have effectuated this policy of expansion.

The Empire which the nomadic tribe of Osmanli-Turks established in the early part of the 14th century was a military state whose life and business was war and conquest. This inherent belligerency of the Turkish State which originated in the nomadism of the Osmanli-Turks was powerfully aided moreover by another factor likewise of nomadic origin—Islam. Islam called for a continuous war against the infidels

and this was linked up closely through the Koran with the whole cultural and religious life of its followers. The Osmanli-Turks who were won for Islam took over this ideal because it conformed completely with their own nature. Thus the teaching of the Koran became the basis and support of the Ottoman State.

The conquerors who held these ideas and who laid the foundation of the Ottoman Empire were the army of horsemen, *akinci* (light cavalry), who were assisted, from the earliest period, by a small group of irregular foot troops, *azab* (unmarried).

The army of horsemen long constituted the élite of the Ottoman military power. However, quite early it became evident that a complete reorganization of the army and creation of a well-drilled infantry was indispensable for the successful conduct of war and conquest. Although this cavalry was unmatched in open warfare, it was not well suited for siege operations against fortified towns of the Byzantine Empire. Moreover, very rapidly the Turks realized the advantages of establishing themselves in Europe and the expansionist tendency toward the Christian West was their leading idea. While in Asia Minor the Turks had been able to capture fortified places through trickery and long sieges, the final destruction of Byzantium and a conquest of Europe could not be achieved through such means. For this a well organized and trained infantry was necessary.

To meet the exigency, an attempt apparently was made to establish a militia of foot soldiers comprising the younger sons of the Osmanli horsemen. This uniformly armed and well paid troop was called *pyadé* or *yayán* (foot people). But it proved ineffective in war, while in peace time, its licentiousness and constant clamor for increased pay constituted a danger to the stability of the State. As a result, the *pyadé* was replaced by a regiment of mercenaries. These were the *azab*, and into their ranks entered principally the Islamic town dwellers. The troop was, however, not well trained and undisciplined and played only a minor role in the military structure of the Turkish State.

The difficulty of creating an efficient and well drilled infantry from Turkish elements was due to the fact that every Turk of any importance served as a feudal horseman, or as a follower of one, while only the lower classes would enlist in the infantry. But owing to their still recent nomadic life, these Osmanli elements proved completely worthless for war purposes in a regular infantry and required a prolonged schooling in order to bring some discipline and order into their wild hordes.

## FROM CHRISTIAN PRISONERS OF WAR TO THE LEVY ON CHRISTIAN CHILDREN

The failure of the attempts to form an infantry from the Turks convinced the Ottoman rulers of the necessity of drawing upon other people. However, since Asiatics stood low in their reputation as warriors, Armenians, Jews and the inhabitants of Asia Minor were immediately excluded from all consideration. It was decided to recruit the troops from European Christians only. But to recruit an army from strangers and unbelievers was as much contrary to the basic principles of Islam as it was impolitic to have an armed militia composed of Christian subjects. And yet, the creation of the indispensable and efficient foot troop, upon which the perpetuation of the military State itself depended could only materialize by utilizing, in accordance with nomadic custom, the service of foreign, indeed, even hostile, peoples. Advised by the renowned and shrewd military judge Kara Halil Cendereli to recruit the infantry from European Christians exclusively, Sultan Orkan decided to organize the corps of the Janizaries in 1330 by resorting to Christian war prisoners. Since as a result of the numerous wars there was an abundance of these prisoners, the plan was executed rapidly.

As organized by Orkan, the corps consisted of 1,000 men who were drawn from the fifth part (*beşinci*) of the human booty which, according to the Koran, belonged to the Sultan. Replacements were drawn from Christian prisoners of war who were forced to accept Islam and Christian volunteers who became converts to Islam. But the number of mature prisoners did not suffice to meet an increasing demand for replacements, nor did it permit the expansion of the corps. Furthermore, despite the severe discipline, it was not possible to trust such recruits. Children, however, could be properly molded. Hence, in 1362, under Murad I, the recruiting was extended to the fifth part of Christian children who became prisoners of war, and it was decided to subject them to a thorough schooling for their future military activity. By the time of Selim I, even this source was no longer adequate to meet the growing demand for men and it was decided to impose a forced levy (*devşirme*) upon children of the subject Christian peoples who up to that time had been free from military service. It is interesting to observe that the method of recruiting the Janizaries developed gradually from experience and improved step by step until it culminated in the institution unique in history.

Throughout the earlier period of their existence, the number of

Janizaries was always small. The first Sultans followed the rule of not augmenting the troop in the interest of their own security. However, in the later period their number increased. With the shrinkage in the prestige and the authority of the Sultans, this deviation from the earlier rule had serious consequences.

### THE CORPS' AFFILIATION WITH THE RELIGIOUS ORDER OF BEKTAŞİÉ

That Orkan, in establishing the corps of the Janizaries, wished to make it the spearhead of that perpetual war against the unbelievers which was preached by Islam and which, favored by the nomadic origin of the Osmanli, had become the driving principle of the Turkish State, can be inferred from the religious ceremony in connection with the establishment of the corps and from its intimate association with a religious order.

According to legend, upon founding the corps, in order to appease the religious sentiment of the Turks and endow the organization, in view of its anticipated function, with permanency, Orkan asked Hacı Bektaş, a renowned Islamic religious leader who has given his name to the Bektaşîé, an order of Derwishes, to name the troop and impart his blessing to it. According to the traditional story, the holy man, ceremonially placing a felt sleeve ripped from his white coat upon the head of one of the new soldiers in such a manner that the sleeve hung down in the back, called him *yeniçeri*, or new trooper, and imparting his benediction, wished them victory, glory and well being for all time. In memory of this occasion, the Janizaries always wore a white felt cap to the rear of which was attached a piece of cloth. The corps was formally affiliated with the Bektaşîé. The members of the order served as godfathers and chaplains for the Janizaries. Hacı Bektaş became the patron saint of the latter and was always remembered by them in their evening prayers.

Very often we find in history military organizations linked to religious associations. Among the Christian nations, the *ecclesia militans*, the celibate monastic orders, were the prototype of the militant religious associations of knights, with their highly developed esprit de corps and their readiness to sacrifice themselves for the Church. It is quite likely that the Christian Knightly Orders of the Johannites of Rhodes and Malta exerted some influence on the character of the corps. These knights were the most formidable foes whom the Turks had encountered and whom they could not completely destroy. It may be assumed



therefore that the knightly orders served as a model when the organization of the Janizaries was undertaken. The latter, too, were dissociated from all family ties and other worldly contacts and closely bound in a religious tie which made them an unbreakable power in the hands of the Sultan.

The plan to recruit a part of an Islamic army from Christian prisoners of war and later, systematically, from Christian children was a crafty thought, which showed an understanding of human nature, although it was inhumanly hard and cruel. While religious fanaticism probably played a certain part in originating the plan to use the Christian population for purposes of war—thousands of souls were gained for Islam—yet, it was mainly a clever calculation designed to serve the Turkish State. In the first place, by limiting the troop to European Christians, a population largely agricultural in character, they were getting a group of people accustomed to a regular and routine way of life, hence easily organized in a military and disciplined. Secondly, the non-Turkish origin of the members of the troop made it difficult for them to unite in conspiracy, as had the pyadé, with the Turks. Finally, the exploitation of the Christian subjects through the levy upon their children weakened the Christians by robbing them of their strongest and most gifted young men, and strengthened simultaneously the Turks.

### THE RECRUITING FOR THE CORPS: EUROPEAN CHRISTIANS ONLY

But this attempt to create a military organization, which for centuries maintained a superiority over that of the Christian armies, would never have succeeded to the extent that it actually did, had not, in addition to the intimate affiliation with a religious association, their recruiting and training hammered the Janizaries into an extraordinarily efficient warrior society. The recruiting (*devşirme*), as was pointed out, evolved from the impressing of adult Christian war prisoners to a levy on children of the subject Christian peoples within the Ottoman Empire. These children became the slaves of the Sultan. Now, while Muslim law permitted the conscription of prisoners of war and their enslavement, the impressing of Christian children to recruit the corps of the Janizaries was contrary to the common law which forbade a sovereign to force the *dimmi* to give their children into slavery. The disregard of the common law was justified, however, by appealing to a remark of the Prophet that every human being carries from his birth a desire to embrace Islam.

Conscription was practised in the European provinces of the Empire only, namely, in Albania, Greece, and later in Hungary. Some privileged places, as Constantinople and Galata, which protected themselves against it in their original treaties with the Osmanli conquerors, as well as the Islands of Chios and Rhodes, were exempted from the levy. At first the levy took place every seventh or fifth year; then it varied in accordance with the needs and took place at shorter intervals.

Whenever conscription was ordered, small groups of soldiers, each under a Janizary captain and armed with a special firman, made their rounds in the assigned Christian localities. Upon their order, the head of each community, the *protegeros*, submitted the official register of the Christian families and assembled the fathers with all their sons. From these the captain selected one-fifth of their number and between the ages of 7 and 14. Later, however, as many were taken as were needed, the exceptions as to only sons from one family were done away with, and many of a higher age were conscripted. All those who were of good appearance and strong, or who displayed certain skill or had some talent were taken away and sent to Constantinople as the rightful part (*beşinci*) of the Sultan.

This levy, which in reality was a blood tax to be remitted in the persons of Christian boys and for the evasion of which heavy penalties were imposed on the Christians, produced sad consequences for the oppressed peoples. From time immemorial there has been a tendency towards tax evasion. But in this case it was only natural that every and all stratagems would be employed to evade so inhuman a tax. As the law provided that only unmarried boys should be recruited, children were married off when they were still in their cradles. When this could not be continued, because young married men were conscripted, the children were made to accept Islam, for only Christian children were subject to this levy. But soon the Turks, fearing a shortage of boys, refused, contrary to their religious precepts, permission for conversion. The result was that many Christians, particularly in the border provinces, fled with their children, leaving their homes and goods behind. Often Christian families would betray each other in order to save their own children. And very often there were uprisings against this method of recruiting, which were usually suppressed with much bloodshed.

Moreover, grave abuses grew up with this recruiting. The recruiting officers would often disregard the Sultan's firman and would take away a greater number of boys than required by law. But the excess number of boys would not be delivered at Constantinople. The officers

usually offered to sell back to the parents their children at high prices; otherwise, they threatened, they would be sold into slavery. The wealthy Christians, of course, would ransom their children, many of them sacrificing everything to save their sons from this fate. But the poor were the chief victims of this rapacious system. The position of recruiting officers thus became a source of considerable income. Such positions were monopolized by the Grand Viziers, who auctioned them off to the highest bidder. By the 17th century, the system, which had come to resemble the African slave trade, fell into disrepute with both rulers and subjects; the executors of the levy frequently atoned for their extortions with the loss of their rank and sometimes even with death.

But there was also another side to the system of recruiting. Owing to the severe oppression and the great poverty which prevailed in the Christian communities, many a boy, in order to escape this misery, was only too glad to volunteer for the corps, and many parents, to secure a better future for their children, encouraged their sons to enlist. Even from countries outside the Ottoman Empire hordes of youngsters sought admission into the ranks of the Janizaries. The escape from poverty and the riches and great honors which this service offered were great attractions. Turkish officials never failed to hold out these advantages before the starved Christian boys. Indeed, these benefits led the Turkish people to complain against the monopolization of the highest positions in the State by men of Christian birth. Gradually, Turkish boys began to be smuggled into the corps, their parents turning them over to Christians to be delivered to recruiting officers in place of their own children. With this, as will be seen later, the cancerous germ was planted, which gnawed away the body of the corps and finally destroyed it.

### THE ACEMI OGLAN, PREPARATORY SCHOOL OF THE JANIZARIES

From the begining the boys impressed into the service were subjected to a well planned system of education through which they were fashioned into the most ardent defenders of Islam and of the Sultans. The system was distinguished by the strict and careful examination of the physical and mental qualities of boys for the purpose of choosing an occupation for them, an occupation serving the interest of the totality, and diligence in the development of the boys for the duties of this position. In Constantinople, the boys, who through circumcision were immediately accepted into the Islamic faith, were again examined by the

public authorities, in the presence of the Sultan. The best fit physically and the most talented among them were assigned to the Sultan's school for pages. Here they were educated by young jurists and trained, under the supervision of white eunuchs and military experts, for services at the palace, state administration and army, chiefly the Sipahi (paid cavalry).

The others, usually the greater number, were assigned to serve in the corps of the Janizaries. However, they had to go through a hard "preparatory" schooling. The preparatory period comprised two stages: (1) the apprenticing of the boys throughout the country, and (2) their training at the institute of the *acemi oğlan*. The boys were turned over to the special *ağas* of the institute. The *ağas* apprenticed them for a number of years to Turkish peasants and artisans, chiefly in Anatolia, where they learned the Turkish language and were inured to all kinds of hard labor, physical exertion and privations. Their new masters had to pay a small sum, and willingly did so, into the treasury of the corps. For this long apprenticeship was of great benefit to the peasants and the mechanics, particularly the former, in that they were subsidized with labor, so to speak, by the State. And the *ağas* soon turned the system into a profitable business for themselves, for the artisans and peasants would gladly pay something additional to obtain more apprentices or to retain them for a longer period.

At the end of their first preparatory period, when they had become hardened physically and proficient in Islamic practices and the Turkish tongue, the *ağas* returned as many of the boys as were needed to Constantinople. There they entered the institute of the *acemi oğlan* (inexperienced boys), the nursery of the Janizaries, and began the second phase of their education under the supervision of officers.

The *acemi oğlan* was a division of the Janizaries corps, and the number of recruits increased and decreased with the needs of the service for which they were designated. In the early period their number was always small; in the period of decay, however, the situation changed completely.

According to the law established by Sultan Murad I, the *acemi oğlan* were obliged to spend seven years at the institute before they might be promoted to the corps of the Janizaries. At the institute the recruits were subjected to severe discipline, received their training in arms and, in addition, performed all kinds of hard labor on State works. Thus, the State derived considerable direct and indirect economic advantages from the exploitation of this supply of cheap labor.



During this period the recruits lived and slept in special barracks, where under the command of their own ağa, (Istanbul ağaşı), they were divided up into sections of 20-30 boys, each with its own section leader (bölük—başı). They received a small payment from which they maintained themselves by contributing every month a specified amount to the common household. They also had to provide themselves with their own footwear, although other clothing was distributed annually by the State. But life in the barracks was hard and the discipline compared in severity with that of a cloister. Blind obedience to their superiors was inculcated in them, as well as a fanatical subservience to the Sultan, to whom they belonged in body and soul. They slept in lighted rooms under the watchful eyes of eunuchs who punished severely every noise or other impropriety on their part. All individuality and freedom was suppressed in the acemi oğlan, and as a reaction to this, they sought relaxation in excesses against Christians and Jews. Particularly did they display a fanatical hatred of Christians—proof that Islamization had been thorough. These excesses, surprisingly enough, were tolerated and even encouraged, especially, during the two Bayrám festivities. Perhaps it was desired through this official tolerance to tie the acemi oğlan closer to their new law and to the person of the Sultan. In the beginning, owing to their cruelties these young recruits were more feared by the oppressed population than were the Janizaries.

The acemi oğlan never left Constantinople and were not employed in military service. They were, however, as pointed out, utilized on all kinds of public works, as well as on the police force at Constantinople.

At the age of 24 or 25 those of the acemi oğlan who were in perfect physical condition and thoroughly skilled in the use of arms were advanced from the institute to the corps of the Janizaries. Those of weak constitutions, on the other hand, were assigned to various occupations receiving the title çikmé (rejected one).

The system of training of the acemi oğlan shows the Osmanli-Turks' understanding of how best to exploit foreign strength in the Empire's interest. Essentially Spartan in character, it was a perfect creation of the military spirit: a common esprit de corps was developed, a perfect discipline and absolute subservience to superiors.

This same spirit also animated the Janizaries, and made them, as long as it remained alive within them, the backbone of the Turkish forces, the support of the Sultans and the guardians of the Ottoman Empire.

## THE CORPS, AN ECONOMIC AND SOCIAL UNIT

During the early period, the corps of the Janizaries replenished its ranks only from the *acemi oğlan*. As long as this continued, the Janizaries remained an élite troop, and commanded respect not so much through their strength as through the character of their organization and their behavior.

For a period of about two hundred years, that is up to the time of Sulaiman I, the lives of the Janizaries were regulated minutely by the fundamental law of the corps (*Kanun*), promulgated by Sultan Murad I, and embodied in fourteen articles, which included the following provisions: (1) Janizaries owe absolute submission and obedience to their superior chiefs and to commanding officers; (2) there must prevail among the Janizaries perfect unity and accord; their barracks and the living conditions of all of them shall be the same; (3) Janizaries shall abstain from everything which is not becoming to a warrior, such as luxuries in dress, as well in arms, etc.; (4) with regard to the duties which religion imposes, they shall never deviate from the sacred teachings of the venerable *Hacı Bektaş*; (5) only men raised by virtue of the law of *devşirme*, i.e., those who have completed their classes at the institute of *acemi oğlan* shall be admitted into the *odá*; (6) the punishments which carry with them the death penalty shall, by privilege, be carried out in a special manner; (7) Janizaries can only be admonished and punished by their own officers; (8) promotion shall be rigorously observed by order of seniority; (9) invalided Janizaries shall be retired and shall receive a pension; (10) Janizaries shall not let their beards grow; (11) they cannot get married before they have quit the active service; (12) Janizaries shall sleep in the barracks and shall not leave without authorization; (13) they shall not engage in any trade; (14) at certain fixed periods (June to November) they shall perform the necessary exercises and manoeuvres for their military instruction.

Murad's successors augmented the law by a great number of additional articles. After two centuries, however, the law became almost a dead letter owing to the affection which the Sultans lavished on the Janizaries, the privileges which the latter claimed and obtained for themselves, and their unruliness.

The *ocak* (hearth) or corps of the Janizaries was divided into tactical units called *orta* (also hearth = regiment). These *ortas* were lodged in barracks called *odá* (chamber). According to their names, both the *ocak* and the *orta* would signify a feeding community, while the *odá* designates a group of men living and sleeping in common.

Since every Janizary belonged to one *orta* during his entire period of service, the *orta*, consequently, represented a sort of great family, whose members stood in closest connection with one another.

Under Sulaiman the Great, the corps consisted of 165 *ortas*; these soon increased to 196, the number which existed in the last days of the Janizaries. Since the records give different numbers at different times, it may be assumed that in the continuous wars some of the *ortas* were completely destroyed but later reconstituted. Only one *orta*, destroyed as a result of its rebellion, was never reestablished.

The *ortas* were grouped in three divisions. Sixty-two were in the *bölük* (companies) comprising the Janizaries—*ortas* proper; thirty-three were in the *segban ortas* (hound keepers, hunters, popularly called *seymen*); and 100 were in the *yaya* (or *cemaat*) *ortas* (assemblies). Besides these *ortas* there were the 34 *ortas* of *acemi oğlan*. The effective strength of the individual *orta* varied according to the period and the place. In Constantinople the number of effectives in an *orta* was usually 100, while in the provinces it ranged from 200 to 300 men. In war time the effectives in each *orta* totaled 500 men. The *orta* was subdivided into smaller groups composed of 10 to 25 men. In the field, these groups formed, so called, tent associations. Each group had its own small caldron, and was consequently also a feeding association. In war each group had its own pack horse for the transport of impedimenta, tents and weapons.

Thus the corps was a community of men, embodying within themselves the advantages of a closely knit and disciplined military body and the economic benefits of the household, but in whom the family instinct was artificially suppressed in favor of the communal instinct.

It is evident from the foregoing that the Janizaries placed great value on the system of food supply, a recognition that it was at least as important to feed troops properly as keeping them ready for war and in good physical condition. Nevertheless always the greatest moderation was practised in food and drink in order to keep the men healthy and in good temper. Furthermore, it is noteworthy that even in the field the prescribed fasts were observed strictly. In all cases the most scrupulous equality was observed in the distribution of rations, which were consumed by the men at definite periods "in their respective refectories like monks in convents, or scholars in their colleges." In respect to the food supply system the Janizaries were far in advance as compared with the armies of other nations. Herein also lies a cause of the military superiority of the corps.

## THE OFFICERS OF THE CORPS

The importance of the supply and feeding system in the minds of the Turks is indicated not only by the organization of the *orta* but also by the titles of the officers. Almost all designations of officers, were taken from the kitchen and the menial activities connected with it. Particularly was this true in the early days of the corps. The very name of the corps, *ocak*, signifying "hearth," indicates the importance which was attached to the communal economy and division of labor pertaining to it. At the head of each *orta* stood a colonel, called *çorbaci başı*, "the distributor of soup," or "chief soup maker"; in addition each *orta* had a number of other officers, the most important of whom was the *odá-başı*, or chief of the barracks room, the adjutant to the *çorbaci başı* who kept order on parade and saw that the rules were obeyed; the *aşçı başı*, or chief cook, who was the quartermaster of the *orta*, and also occasionally acted as gaoler and executioner; and the *vekilharç*, or controller of expenditure, who obtained food. The noncommissioned officers bore similar unmilitary designations, such as the *sakka başı*, or chief water carrier, and the leader of camels. The officers were thus more supervisors of the food supply than leaders in war.

But above the officers of the *orta*, there was a staff of higher officers, which included the *seymen başı* ("chief of the hunters") who was the *ağa*, or head of the corps and the *zağarcı başı* ("chief of the bloodhound keepers.")

The *ağa* alone had the power of life and death over the Janizaries. He ranked before all other military chiefs and ministers and had a seat and vote in the war council. But while his position was vested with such great authority, it was also a very dangerous one. The *ağa* stood as an intermediary between the Sultan and the Janizaries, and answered with his head for the crimes of his soldiers. Moreover, he had to be very careful not to show the slightest disposition of favoring the interests of one side or the other. Either party was ready to mete out its vengeance. Originally, like all other officers the *ağa* came from the ranks of the Janizaries and was advanced according to the principle of seniority. Since his path to leadership was free of the Sultan it was always dangerous to the throne.

However, in 1515, to curb the unruly spirit of the Janizaries, Sultan Selim I reorganized the staff of officers and placed at the head of the whole corps an *ağa* of his own choice. This met with great opposition from the Janizaries. The position of the *ağa* became more dangerous than before, since to the members of the corps the *ağa* was no longer



"their man" but an outsider, and even an enemy. It could hardly be expected that a closely knit and self-conscious mass of warriors would tolerate one imposed from above and who represented the Sultan's rather than their own interests. The lot of many ağas bears ample testimony to this; there were only a few ağas who died peacefully in possession of their office. In times of disturbance he was the first victim, and strung up on a particular tree on the et meydani (the meat square, meat market) near the main barracks, which was reserved to the Janizaries for this purpose. As a result of these conditions, Muhammad III was forced in 1582 to restore to the Janizaries the right to elect their ağa. Sultan Selim's efforts to safeguard the throne and to preserve the proper behavior of the Janizaries, which alone could have prevented their decay, failed completely because concurrently other conditions developed which contributed to the material and moral degeneration of the corps.

### THE SACRED CALDRON

The military insignia of the Janizaries likewise indicated the importance of the kitchen economy. The most sacred object in the orta was the great meat caldron (kazan) the ancient object of veneration of the nomads of Central Asia. Each group, as was pointed out, had its own small kettle, but each orta had a large caldron made of bronze. To the Janizaries the caldrons were more important than the flags and standards to other armies. Around these caldrons the Janizaries assembled not only for their meals but also for important deliberations. A superstitious veneration surrounded these utensils. Daily, in solemn procession two Janizaries carried the caldron from their barracks to the men on duty in the city, while a third one followed them with a huge scoop. Every Friday, however, the ortas stationed at Constantinople marched with their caldrons to the serai of the Sultan and here received the national food pilaf (rice and mutton) from the kitchen of the Grand Signor. This was always a tense occasion. If the Janizaries hesitated to accept the food, if they upset the caldrons, or if they refused to come altogether and assembled instead around their upset caldrons on the at meydani (Hippodrome) this was a sign that trouble was brewing. The upset caldron brought into the open by the ortas was a sign of revolt. Indeed, a mutinous orta had only through trickery to possess itself of the caldrons of the other ortas in order to draw them into rebellion. But the caldron also served as a refuge—a sanctuary—and one could save his life by hiding under it. The upsetting the caldron

as a sign of revolt became frequent when the Turkish element became dominant in the corps.

On marches the caldrons were carried in front of each respective regiment, while in camp they were constantly placed in front of the tents of each orta. The greatest disgrace to the Janizaries was to abandon the caldron and, particularly, to lose it on the battle field. In such cases all officers were expelled from the orta, and the unit was not allowed to carry its caldron on public occasions.

### THE PAY OF THE JANIZARIES

As a professional standing army, the Janizaries were naturally entitled to food, pay, and uniforms from the State. However, the Government provided, except for the Friday meal of the pilaf which came from the kitchen of the serai, bread and mutton only. All other provisions had to be supplied by the chief cook of each orta. In time of war great care was taken to keep the soldiers well fed.

In peace time, three years of service was required of the Janizary before he received pay, but henceforth he was entitled to it during the remainder of his life. In the later period tardiness in pay engendered revolts. The pay rose with the years of service and varied according to the rank of the individual. Special service or distinction in war was rewarded by an increase in pay.

The pay of the Janizaries varied with different periods. Originally, the pay of a Janizary was  $\frac{1}{2}$  asper per day, but increased until under Selim I, it was 5 aspers. Further increases followed, usually due to revolts, but the pay largely became stationary under Sulaiman the Great, who introduced a definite system of payment.

From the time of Sulaiman there were a number of pay classes. The most important classes were: the eskinci, or men in actual service, received from 3 to 7 aspers daily; the amelmandé, or veterans who lived in the barracks and the koruncu, or sentries were entitled to receive 8 to 29 aspers daily; and oturák, or invalids were paid 30 to 40, and later up to 120 aspers daily, which was also the highest pay that an ordinary Janizary ever could earn. Into the last group Janizaries occasionally were admitted as a reward for distinguished service, or through high favor.

The pay of the acemi oğlan varied between 2 and  $39\frac{1}{2}$  aspers for recruits and officers. The highest pay and the highest pension of an officer up to the grade of çorbacı başı was 120 aspers, the pension of the higher officers 150 aspers and that of the ağa 300 aspers daily.

Payments were made every quarter and a deduction of 12 per cent was retained in the general treasury of the corps. The treasury also received payments from peasants and artisans for the services of the boys who were apprenticed to them, as well as the entire property of the deceased members of the corps. Into the treasury was transferred not only the property of the deceased Janizaries but also the return on the capital at the rate of 10 to 12 per cent. All those receipts served as reserve funds for ordinary ameliorations, for the decoration of the barracks, for the purchase of parade uniforms, for the relief of the sick and needy comrades, and for ransoming of prisoners of war.

The policy of depreciating the currency, which was frequently resorted to because of financial difficulties, was energetically opposed by the Janizaries, who, when such changes were made, often rebelled demanding an increase in pay in order to compensate for the loss occasioned by the depreciation. In the early period, at least, the money was not counted but weighed, in order that no one would complain of being defrauded by too light coins.

From their pay the Janizaries generally had to clothe and arm themselves. In general, greater care was given to the clothing of the Janizaries than to their weapons. Their uniforms, simple and purposeful, consisted of a long coat (*dolarma*) which was of the same cut for all, and may be considered as the first infantry uniform of modern times. It was designed to protect the body against all changes in weather during all seasons of the year. On the march and in attack, in order not to hamper movement, the tails of the coat were turned up on both sides and fastened to the belt. The cloth for the coats was supplied annually by the Government, but only 12,000 men received it. The others had to provide themselves with coats, and in this case the choice of color was left to the individual. The same principles of equality and justice, which was revealed in the matter of rations and pay, prevailed in the distribution of the cloth, which was wrapped in equal sized packages, the total number of which was the same as that of the members of the *orta*. At the time of distribution, every member of the *orta* rushed into the hall at the same moment and seized whatever package came into his hands in the darkness. Though they had to be purchased by the individual Janizary, the cap, with the wooden rice spoon attached to its front—a further indication of the importance of the food economy—the trousers, the knees of which were cut out, and the boots were standardized. The arms, too, had to be purchased by the men themselves, but for want of regulations to the contrary, there existed a great diver-

sity in the kind and quality of weapons. In war time, those who had no arms received them from the State arsenal.

## DISCIPLINE

The discipline was severe and the drill was hard in the corps of the Janizaries during this period. Military drill had to be performed daily. It was limited, however, to the development of the individual's skill in the use of arms; there were never any common exercises in military tactics. On marches full individual freedom was allowed and no particular order had to be maintained. Notwithstanding these seeming disciplinary deficiencies, the men gathered very quickly before the approaching enemy, each one of them in his designated place, and stood ready as a massive wall for attack and defense.

In the barracks, where the Janizaries were obliged to live, there was perfect cleanliness and complete order. No woman was ever allowed to enter these quarters. There, as well as in the camp, all Muslim rites and rules were strictly observed. The excesses which were tolerated in the *acemi oğlan* were forbidden.

Obedience and discipline, the two supporting pillars of every efficient military organization, have their roots in religion. The Janizaries, members of an organization with religious characteristics, and living a monastic life, were completely animated and thoroughly imbued by this religious spirit. Strict obedience and subjection to superiors and older soldiers was the first duty of the *acemi oğlan* when he entered the corps and was assigned to an *orta*. Each one of them was a serving brother who was obligated to render the older Janizaries all the small services occasioned by the communal life in the field or at the table. Each one of them had to secure his position and advancements through his own ability and efforts. In the early days of the corps, all of its members willingly submitted to this discipline.

The discipline in the corps resembled that of a cloister. It was maintained by various penalties which had to be borne without murmur. Penalties varied with the seriousness of the breach of discipline. Disobedience, neglect of duty, and infraction of rules, such as unauthorized absence from barracks at night, were punished with the whip. Punishment was inflicted after the evening prayer, under the supervision of the quartermaster. According to custom, the offender was required not only to kiss the hand of his beater but also to pay him for his efforts. The least severe penalty was imprisonment in a cell which was located



in the kitchen. Some crimes were punished by imprisonment for life, dismissal or removal to a border fortress; the latter was considered by the Janizaries more severe than the death penalty. In peace time the penalty for desertion was both imprisonment and whipping. In time of war this offense was punishable by mutilation as well as by strangulation. Strangulation, the most honorable form of execution according to Turkish custom, was carried out by the chief cook in the execution tent which stood in the center of the camp. In peace time, the penalty was inflicted in the cell in the kitchen. Cowardice was not tolerated and "any man convicted of cowardice was dismissed and never permitted thenceforth to lay claim to the title of Janizary."

Since the idea prevailed that no Janizary could under any circumstances be executed, it was customary to expel the intended victim from his *orta*. Only after he was thus degraded to the position of an ordinary subject could justice take its course. But even then he might be executed only in secret. This practice originated in the fear that a public execution, in view of the close comradeship which existed among the men, might occasion an uprising of the entire corps. Eventually it became a right of the Janizaries inscribed in the Kanun. This right was respected carefully. After sunset, the offender was strangled, and the body, weighted with stones in a sack, was thrown into the sea. One shot from a cannon at the Serai announced that the execution was carried out. The death penalty was imposed very rarely.

In the case of higher officers, the most frequent penalty was degradation and banishment, combined with confiscation of property.

## PEACE-TIME ACTIVITIES OF THE JANIZARIES

In peace time, the great mass of the Janizaries was stationed at Constantinople, where their main barracks were located on the *at meydanı*. Here they had their own mosque, which in the later period often formed the center of disturbances and conspiracies. Many of the *ortas* were garrisoned in the more important cities and border fortresses. The key to a border fortress might be held only by an officer of the Janizaries. Usually, these *ortas* would return after some years to Constantinople and other *ortas* would be sent to occupy their places.

As the number of Janizaries increased they were given, in addition to their purely military functions, various other duties, a practice by which the State, as in the case of the *acemi oğlan*, gained considerable benefit without further expense. It was their duty to protect the subject population as well as foreign traders throughout the Empire. This

duty they performed admirably. In Constantinople, they and the *acemi oğlan* served as street cleaners, firemen, and as police under the command of the *yenicheri ağaşı* who was responsible for the maintenance of order in the capital.

The inactive Janizaries were employed at manual labor around the gardens of the Sultans and at the Serai. Many were employed on construction and maintenance of public roads, while others served as boatmen, as collectors of wood, and artisans. Some inactive men served as scribes of the corps; others as the guards and mail carriers of foreign embassies. The latter were highly profitable honorary positions, and were given to veterans as rewards for distinguished service, or were secured by them through special favor. Many of the distinguished veterans were assigned to positions with the Turkish fleet for the rest of their lives. Most of the older Janizaries were not pensioned or rewarded and were forced to engage in trade in order to subsist.

## TRANSFORMATION OF CORPS: GROWTH OF POLITICAL CONSCIOUSNESS

With the passage of time, the corps of the Janizaries was transformed first into a mercenary army and later into a militia, membership in which was inherited. Side by side with this metamorphosis evil propensities developed within the corps which completely undermined it. Therewith the role and the significance of the Janizaries changed, and this in turn reflected itself in the growing weakness of the Turkish State, and the ultimate relegation of a world power to the position of a third-rate state.

The growth of political consciousness of the Janizaries was a major factor in their decline. Although this political consciousness manifested itself before the transformation in the composition of the corps it became more intense as the process of change continued.

Quite early in their history the Janizaries began to enjoy certain rights and privileges: they were exempted from ecclesiastical and secular jurisdictions; in their barracks they had the right of asylum; they had the precedence before all other military groups in the Ottoman armed forces; according to the *Kanun*, they could be punished only by their own officers; they were exempt from taxation, and only rarely was their property confiscated. This growth of privileges was paralleled by an increasingly close relationship between the Janizaries and the Sultan, who from the time of Sulaiman I was registered in their lists and drew the pay of a veteran. Furthermore, there was the prerogative

that the Janizaries marched to war only with the Sultan at their head. This was a highly beneficial arrangement both for the Sultans and for the Janizaries in that the martial spirit of both was constantly fostered. But to safeguard this spirit, the Janizaries on one or two occasions forced a change in the throne in the interest of a more energetic man, and early in the reign of Sulaiman I, they forced that ruler to devote more attention to the affairs of state than to hunting.

It was not long, however, before the Janizaries became conscious of their role in the Ottoman State and utilized it for their own advantage. They exerted an ever-growing influence and eventually became the arbiters of the fate of Sultans and the Empire. Concurrently, traces of decay began to appear in the corps.

Unbridled greed was an evil force which pushed the Janizaries along the road to their downfall. In 1449, the Janizaries stationed at Adrianople revolted for the first time, demanding an increase in pay. Subsequently, there developed the practice according to which every Sultan, upon accession to the throne, advanced each Janizary to the next higher pay class. This custom had originated in the voluntary liberality of certain Sultans, but once something was granted to the Janizaries it never could be withheld from them again; they believed that they had legal and prescriptive claims to such favors.

Even more ominous was the monetary gift that was due to every man upon the coming of a new ruler to the throne. This custom, which attained legal sanction, originated in 1451, when Sultan Muhammad II, to allay the discontent of the Janizaries, saw himself compelled to distribute a gift. It was abolished in 1774, by Sultan Abdul Hamid I. The amount of this gift had increased continuously until it had emptied the public treasury.

But the practice had had even more fatal consequences because it had stirred the lust for change in the throne; for then a higher gift had to be distributed. Thus the weak Bayazid II was forced to abdicate because his successor Selim I had promised to pay the Janizaries a gift of 3,000 aspers per man, as well as an increase in daily pay of 6 to 8 aspers. Faced by an ever increasing number of Janizaries, the Sultans found it necessary to satisfy their greed and in order to do so, often had no other choice than to execute their richest subjects and confiscate their property, a practice which became increasingly more frequent as the decline of the Empire proceeded.

Upon the occasion of the Sultan's first departure for war, yet another gift ranging up to 2,000 aspers per man had to be paid to the Janizaries.

In wars, the Sultans would often be forced to pay to each Janizary, in addition to a share in the booty, special attack money to rouse the valor of the troops, in important battles. And so in this greed there manifested itself the amazing power of the Janizaries which, while indeed it was the main support of the Ottoman Empire, yet, with the weakening of the sovereign power, became an important cause of its decline.

### THE CHANGES IN THE SOCIAL STRUCTURE OF THE CORPS: THE ADMISSION OF TURKS

The admission of men of Turkish nativity, the grant to members of permission to marry, and the replenishment of the force with sons of Janizaries brought about structural changes and, in conjunction with the preceding factors, led to the decay of the corps. It is not possible to specify when the changes actually began, nor to trace in detail how the changes came about. It is clear, however, that the observance of regulations on which the vigor and the very existence of the Janizaries had rested had begun to weaken before the time of Sulaiman I.

The first break in the system was the infiltration of Turks into the ranks of the Janizaries through the *acemi oğlan*. Owing to the great privilege of the corps and the excellent opportunities which existed for gifted boys, many Osmanli turned over their sons to Christians in order that in the guise of Christians they might be accepted into the corps. However, by the middle of the 16th century Turks were no longer a rarity among the Janizaries. They were being admitted to the *acemi oğlan*, or directly into the corps without resort to any subterfuge.

The development of this practice was occasioned by the great losses sustained by the corps in a series of disastrous wars, which could not be replaced by the existing supply of *acemi oğlan*. Later it was stimulated by the abrogation of the child tribute on Christian subjects in 1638, in consequence of the realization that the recruiting long had constituted a mere pretext for extortions. Free enlistment now took the place of conscription, and the corps of the Janizaries became a mercenary troop.

With the appearance of Turkish elements among the *acemi oğlan* the institution lost its ancient spirit and customs. In place of the iron characters formerly produced, an effeminate generation was brought up which could not withstand the rigors and exertions of war, many of the new recruits even succumbed during the training. Moreover, the healthier element, which was still secured through annual recruiting of Christian boys, became weaker in the same proportion in which the



Turkish effeminacy grew. The acemi oğlan sank rapidly to the status of a simple recruiting station for the Janizaries. In the end it became an educational institution for Turks who sought employment in the service of the Sultan outside of the corps. The more the Turks forced their sons into the acemi oğlan the more their number grew, and by the middle of the 16th century the number of acemi oğlan was estimated between 8-16,000, as compared with an average of about 3,000 in the beginning of Sulaiman's reign. How fatal this change was is demonstrated clearly by the rioting of acemi oğlan in 1647 and 1649 in protest against the extension of the period of service at the institute—something unimaginable in the earlier days.

Those Janizaries who through the influence of friends or bribery had not gone through the school of the acemi oğlan showed themselves to be a weak and cowardly group. While they had none of the stubbornness and wild defiance of the old acemi oğlan, yet they did not possess either the bravery, its consciousness for military discipline, or its proud and absolute devotion to the Sultan. Those of the good old stock refused to associate or serve with the intruders whom they thoroughly despised. Very often bloody clashes occurred between the two groups. Dissension in the ranks broke the spirit of unity in the corps.

## THE PERMISSION OF MARRIAGE: DISORGANIZATION OF THE CORPS

The admission of Turks into the corps of the Janizaries was only the first step to ruin. As alluded to above, according to the laws of the corps, no Janizary had the right to marry and raise a family; at least as long as he was in the active service.

The whole situation changed completely with the admission of Turks, for soon marriage had to be permitted. The Turks, in contrast to the early Janizaries, came from homes and had families. Many entered the corps at mature ages, and many were probably married. Their desire to return to their families and to maintain their other relations was therefore natural, a desire which had become foreign to the acemi oğlan. The Janizaries now demanded permission to marry. At first, such permission was granted by the ağa to old and deserving veterans and to others under special circumstances, subject to the condition that they would serve as garrison troops in the border fortresses. But in 1566, Selim II, upon his succession to the throne, was forced to grant to all Janizaries the unrestricted right to wed. With this development the close-knit organization began to break asunder. Not only did

married Janizaries live in their own households, but eventually unmarried members of the corps refused to live in the barracks and submit to the discipline prescribed by the law of the corps.

### THE JANIZARY CHILDREN: DECAY OF MILITARY EFFICIENCY

The consequence of the right to marry was the question of the support of the Janizaries' children. While the pay received by the individual Janizary was ample for himself, he could not support a family on it. Hence the Janizaries now demanded, what was only natural, that the State care for their children. Their demand was granted. It was provided that the children should receive a bread ration from the day of their birth, with the result that they came to be known as the "bread eaters." Then, to secure the future of their sons, the Janizaries demanded that their sons be made Janizaries. At the time of the disturbance which accompanied the accession of Selim II to the throne the Janizaries obtained the formal right to register their sons on the lists of the *orta*, thus avoiding the requirement that the latter serve in the *acemi oğlan*. They also secured the support of the orphaned children of the Janizaries. The sons were entitled to rations and a small pay which increased with the years. The corps was now transformed into an inheritable institution.

Naturally, the acceptance of Janizary children was an abuse which debased and destroyed the original character of the corps. The old discipline broke down completely, as the fathers would hardly subject their own sons to the rigorous treatment of the *acemi oğlan*. A new generation of Janizaries grew up which no longer compared in military efficiency, courage and valor with the once most renowned infantry in the world.

### THE JANIZARIES BECOME "A NATION OF SHOP-KEEPERS": ECONOMIC INTERESTS PREDOMINATE

A further step on the road of transformation and decay of the corps was the spread of business occupations among the Janizaries. This was a consequence of the structural metamorphosis and stood in close connection with the new method of recruiting. The embarkation of the Janizaries upon peaceful business pursuits reacted unfavorably upon the military aspects of their lives. Their business and economic interests began more and more to shape their thoughts, their actions and their lives; they now received the call to arms with the most mixed feelings.

In earlier days, only superannuated Janizaries, neither in active service in the corps nor in the service of the fleet, nor invalided were authorized to engage in trade. With the development of family life among them, however, many Janizaries began to devote themselves to business and handicrafts, for notwithstanding their pay, the special gifts and the support of their sons by the State, they otherwise could not make ends meet. The engagement in civil occupations was in disregard of the provision in the Kanun; but then the institution which this law regulated was no longer the same. Indeed, the government fostered peaceful occupations among the Janizaries in order to break their wanton spirit.

Various civil occupations began to spread in the corps. Usually, the same trade was practiced by the members of an orta, and ultimately some guilds, such as the butchers in the year 1634, consisted in good part of Janizaries. In Constantinople, the Janizaries controlled completely the fruit and vegetable and coffee roasting businesses, and other important articles of consumption, with accompanying evils of monopolistic practices. Since the Janizaries were granted the privilege of importing goods duty free into the country, a large part of foreign commerce, particularly the coastal trade to Syria and Egypt, was in their hands.

As long as the old system of recruiting prevailed, as long as the profession of the Janizary was hard and dangerous, no other elements of the population, on the whole, were attracted to the corps. As a result of the increase in their business activities and their gradual monopolization of many branches of industry, however, the Janizaries attained a very important economic position and became the envy of other classes in society. The economic security, the protection of a powerful corporate body, and the political and social influence of the Janizaries began to attract the Turkish element in ever larger number.

Hence, all classes and all kinds of people crowded into the corps. Many sought entrance not for the pay nor with intention of rendering military service, but in order to benefit from the many advantages and privileges which membership in the corps afforded. Corruption made such enlistment easy. Any one who paid an annual fee to the Janizary officers had his name entered on the registers of the orta and thus enjoyed complete freedom from taxation. Any relative of the Janizaries would be accepted when a number of men of a given orta could verify such relationship. Classes, formerly held in contempt, such as the water carriers and porters, were entered in the lists; so too, brigands and

vagabonds, and Christian and Jewish renegades. Although many attempts were made to weed out the undesirable elements and to exclude those unfit for service, the corps increasingly became a conglomeration of riffraff.

## THE CORPS AS A PRAETORIAN GUARD: REVOLTS OF THE JANIZARIES

With the influx of unfit men the military skill of the Janizaries declined. But since they were interested merely in maintaining their rights and influence, any attempt by the authorities to bring about reforms, particularly in the military sphere, was met by strenuous opposition, accompanied by charges that the proposed changes were anti-Turkish and in violation of the established rules of the Empire. They thus became the greatest internal obstacle to transformation of Turkey into a modern State.

Simultaneously another factor manifested itself which had dangerous consequences for the Sultans and for the State: the revolts of the Janizaries. While revolts of Janizaries had taken place in the early period, these had been, perhaps, justifiable, since they had sought to prevent usurpation of the throne by treachery, or to replace a weak Sultan by one more energetic. Now, however, the Janizaries considered it as their right to choose the Sultans, to demand accounting from them, and when they fell into disfavor to dethrone them and even to murder them. In revolts of Janizaries four Sultans lost their lives and four were dethroned. The highest dignitaries of the State as well as the favorites of the Sultan also paid with their lives. Indeed, to save himself, a Sultan would allow the victims demanded by the Janizaries to be murdered and throw their bodies to them. Rape, fire and destruction accompanied these revolts.

The effect of these developments on the military efficiency and valor of the Janizaries has been referred to already and need not be restated here. Suffice it to point out that with the social transformation the virtues which singled out the corps of the Janizaries among the armies of the world disappeared and the once powerful support of the Empire became its worst cancerous affection. Usurpation of power increased with the decay of the corps.

## FUTILE ATTEMPTS TO REORGANIZE THE CORPS: THE RULE OF THE MOB

Hand in hand with this degeneration went the political disorganiza-



tion of the Ottoman Empire. Just as in the early period the Empire owed its greatness to the Janizaries, so now the Janizaries were largely responsible for the breaking up of the vast imperium of the Osmanli Sultans. Successive Sultans realized that if a complete disintegration was to be avoided a thorough reorganization of the army was necessary to bring it up to the level of European armies which by that time had made considerable advances in military technique, tactics and armaments. Some attempted to do it through reform of the corps, others could see no other way out but through the destruction of the Janizaries. As early as 1622 Sultan Othman II planned their destruction, but he was betrayed to the Janizaries and paid for his scheme with his head. His fate deterred his immediate successors from undertaking further reforms, with the result that the Ottoman Empire was no longer ruled by the Sultans and the viziers but by the hordes of Janizaries, and the condition of the army and State was at its lowest. More than 100 years elapsed before Mahmud I undertook without result to introduce certain reforms through peaceful means. Selim III, who actually organized a new troop on the model of European armies, was dethroned and murdered.

Throughout the entire period, the Janizaries were supported in their opposition to reorganization and reform by the clergy, especially the derwishes of the order of Bektaşîé, who derived great prestige and power from their ancient affiliation with the corps, and the powerful caste of the learned, the ulemá, the staunchest defenders of old Turkish laws, customs and traditions, who openly expressed their sympathy for the corps and always supported the Janizaries in their demands on the Sultans. Among the lower classes, the Janizaries, who were spread throughout the whole Empire, were considered a sanctified institution, and with their name were connected the dearest recollections of Muslims of former glory and victories. On their part, the Janizaries throughout the whole of their existence sympathized with the masses and at all times constituted a counterbalance against the arbitrariness of the Sultan in favor of the people. They always knew well how to exploit their sympathy for their own ends.

## THE DESTRUCTION OF THE CORPS OF THE JANIZARIES

Despite these conditions, Sultan Mahmud II from the very beginning of his reign in 1808 planned the destruction of the Turkish armed forces. After 18 years of persistent effort he succeeded in gaining his objective.

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First, he had won over the ulemá to his side and had undermined the confidence of the people in the Janizaries by accusing them of all kinds of superstitions and heresy. Next, he had drawn to himself one of the chief leaders of the Janizaries and through him had appointed to the higher positions officers favorable to reform. New troops had been organized in the provinces upon whom the Sultan could depend in the carrying out his plans. Care had been taken that at the decisive moment masses of these troops should be on hand.

On May 29, 1826, the Sultan determined that a new troop should be organized. He was supported in this by the Mufti, who ruled that the carrying out of the military reform was a religious duty. Thereupon, the Sultan ordered that each of the 51 ortas stationed at Constantinople assign 150 men to the new troop. The decision came so suddenly that the Janizaries were taken by surprise, and the officers were actually able to draw upon the ortas for the required number of men. By the 4th of June the new troops already had been formed, and on the 10th a parade took place before the Sultan. But meanwhile dissatisfaction and the spirit of revolt arose among the Janizaries, although no leader appeared to solidify the mass and lead the hordes towards rebellion. They began to plan murder and destruction. Making preparations for the complete destruction of the Janizaries, Mahmud saw his time approaching and through agents provocateurs incited them to revolt.

On the night of June 14-15 the uprising occurred. Five ortas planted their upset caldrons on the at meydanı, and in the early morning about 20,000 men were gathered there. The support, however, was not wholehearted, and a number of ortas hesitated to participate in the revolt. When an attempt by the Janizaries to storm the Serai failed, the Sultan had already given his command for the suppression of the revolt. Artillery was put up on the Hippodrome and the new troops were massed on all sides. The flag of the prophet was raised, and the population of Constantinople began to arm itself for the holy war against the Janizaries. A real fury seized all, and a violent hatred moved all to the destruction of the corps, which but recently had been regarded with veneration.

With this the fate of the Janizaries was sealed. Their delegates, who demanded the dissolution of the troops and the execution of the reform leaders were turned back, and when the Janizaries refused to disperse and surrender their arms the Sultan gave the order of attack. This was carried out with surprising rapidity and with thoroughness.

The artillery played havoc with the Janizaries. Masses of them were slaughtered in the market square; others sought safety in the barracks. But the barracks were shelled and many Janizaries perished in the action. Those who tried to escape were shot down. A military tribunal was set up, and made short shrift with the rebels. A man hunt spread throughout the city, and Janizaries, easily recognized by the cut-out knees on their trousers, were caught and unceremoniously court-martialled and executed. The caldrons, the sacred insignia of the Janizaries, the public exhibition of which so often brought about rebellion, overthrew ministers and murdered Sultans, were covered with dung by the furious populace and dragged through the streets; the flags and caps of the Janizaries were made objects of derision.

Furthermore, every opposition to reform was destroyed in the capital and in the provinces. The derwishes of Bektashiya atoned severely. Three of their chiefs were executed, many of them killed and the rest expelled from Constantinople and dispersed throughout the Empire. The barracks, mosques and other places of the Janizaries were levelled to the ground, and the cloisters of the derwishes demolished. And an eternal curse was pronounced on the name of the corps.

In this way, the one time brilliant corps of the Janizaries, the model for the Christian armies and the terror of the Christian world through long centuries, met its end in the most bloody destruction on record.

## CONCLUSION

The history of the corps of the Janizaries faithfully reflects within itself the whole history of the Ottoman Empire, the secret of its power and its subsequent irremediable weakness. The period from 1330 to the middle of the 16th century, the era of the highest glory of the Janizaries, saw the establishment and extension of the Ottoman Empire, reaching the pinnacle of its development as the leading world power under Sulaiman the Great. It was actually the corps of the Janizaries to which the Empire of the Osmanli-Turks owed its greatness. In all the great battles which were decisive for its position as a world power the arms of the Janizaries carried the day, and the reputation of invincibility which they had won for themselves was for hundreds of years the best bulwark of the Ottoman Empire.

When from the middle of the 16th century onward the Turkish element began to predominate in the corps, the Janizaries were transformed from an elite troop into a corrupt and reactionary praetorian guard, devoid of all honor and morality, and a menace to the Sultans

as well as to the Turkish Empire. As a result, the decline of the corps and with it that of the Empire became inevitable.

Moreover, the Janizaries became the most dangerous enemy of the favorable development of the military and political life of Turkey. They stood in the way of the transformation of the Ottoman Empire into a modern state. All attempts to bring order out of the chaos failed. Hence the corps of the Janizaries had first to be destroyed before a reorganization of the Ottoman military forces successfully could be undertaken and the disruption of the Empire through wars and internal revolt of the oppressed Christian peoples as a result of rising nationalism could be halted. While the reorganization of the army was carried through by Mahmud II and his successors with the aid of European military experts, nevertheless the reform was not sufficient to arrest the disintegration of the Ottoman Empire which finally broke up following World War I.

But despite its ultimate disgrace, the corps of the Janizaries is unique in the history of military institutions. The singular position which the corps occupies in military annals is derived from the fact that it was the first regular infantry of modern times, that it had a continuous existence over a period close to five centuries, and that the method of recruiting for the troop as well as its social organizations were the most unusual which world history knows.

Perhaps nowhere else were the fortunes and the existence of a state so closely bound up with those of an army as were those of the Ottoman Empire with the corps of the Janizaries, which made possible its rise to a world power and then brought about its disorganization and decay.



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## HEADQUARTERS GAZETTE

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The annual joint meeting of the American Military Institute and the American Historical Association will be held at 10 a.m., December 29, 1944, in Private Dining Room No. 12 of the Stevens Hotel, Chicago. Dr. Troyer S. Anderson, Professor of History at Ohio State University, now on leave as Historian for the Office of the Under Secretary of War, will speak on "The Influence of Military Production and Supply on History." Discussion on the paper will be led by Professor William L. Hesselstine of the University of Wisconsin and Brigadier General Donald B. Armstrong, Commanding General of the Army Industrial College. Professor Theodore F. Blegen, Dean of the Graduate School, University of Minnesota, will be chairman of the meeting.

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Among the articles to appear in the next issue of *MILITARY AFFAIRS* will be the first installment of George Weller's "Luck to the Fighters," detailing the activities of the 17th Provisional Pursuit Squadron, USAAF, in the defense of Java in January-March 1942. Weller, Chicago *Daily News* correspondent and Pulitzer Prize winner, served as reporter with the Squadron throughout the campaign.

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George J. Stansfield, Librarian of the Institute, announces the accession of another 300 books to the Library. Assisted by Lieutenant Thurman Wilkens, AUS, Mr. Stansfield is in the process of cataloging all holdings of the Library.

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The series of exhibits on the military establishments of the Allies held in the National Archives, Washington, was completed on September 15 with a special exhibit on the Polish armed services.

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Reports from the several historical sections of the armed services indicate continuing productivity in studies completed. It is sincerely hoped that the more important of these studies will be published, and that all unpublished material will be arranged, inventoried, and preserved in an accessible depository at the time of liquidation of the historical sections. There is a growing need for a definition of policy on historical research in the armed services in the postwar period.

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## AMONG OUR CONTRIBUTORS

Major John North, author of *Gallipoli*, *The Fading Vision*, served with the British Forces in the last war and has been attached to Allied Forces Headquarters in North Africa and France during the present war.

Lieutenant Samuel G. Myer, a member of the American Military Institute, is serving overseas with the Signal Corps, AUS.

Brigadier J. G. Smyth, who was for three years instructor at the Camberley Staff College, has commanded a brigade at Dunkirk, and divisions in India and Burma during the present war.

Arthur Leon Horniker, a specialist on the Near East, is on the staff of the Foreign Economic Administration.

Charles B. Quattlebaum is on the staff of the Division of Legislative Reference of the Library of Congress.

Among our reviewers, Colonel Adelno Gibson is Librarian of the Army War College; Captain Bell Irvin Wiley, author of *Johnny Reb*, is on the staff of the Historical Section, Army Ground Forces; Professor Robert G. Albion of Princeton University is President of the American Military Institute; Hyman Roudman is an Associate Editor of *MILITARY AFFAIRS*; Elliott Cassidy is on the staff of the Historical Section, Office of Quartermaster General, War Department; Lieutenant Elting E. Morison, author of a recent biography of Admiral Sims, is engaged in historical work in the Navy Department.

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## THE MILITARY LIBRARY

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*The War of 1812*, by Henry Adams. (Washington: *The Infantry Journal*. 1944. Pp. 377. \$3.00.)

By selecting and rearranging various parts of Henry Adams' seven volume classic *History of the United States*, Major H. A. DeWeerd has created in effect a history of the war of 1812, which for the time being must fill a gap that has long existed in our military literature. Even after half a century, the splendid style of Henry Adams carries the reader happily through the early encounters on the Canadian border, Perry's naval battle, the Indian skirmishes, Lundy's Lane, the disaster of Bladensburg, and on to Jackson's glory at New Orleans. It is not only valuable reading, but fascinating.

The war of 1812 is perhaps our least known war. The British at the time were engaged as a major effort in the life and death struggle of the Napoleonic wars. They could not afford to divert important military resources or thought to this side issue. As an illustration of the British attitude toward the war of 1812 then and now, the *Outpost* published during the present war by Americans in Britain to bring about a better understanding between the peoples, recently remarked that the Editor *had at last run across a Britisher who knew there had been a war of 1812*.

It is significant that the military effort made by the British in the war of 1812 was much less than that which they made in the Revolution in spite of the fact that the military resources of Great Britain had expanded greatly in the generation that had intervened. On the other hand in terms of troops engaged, the military effort of the United States greatly exceeded that of the Revolution. It is significant that the largest number of British Regulars in the United States and Canada in any one year of the war of 1812 was 16,500. This was greatly below the strength in British regular forces employed in the Revolution. While these 16,500 regulars were greatly augmented by British colonials and Indian allies, at no time was the total equal to that of the United States forces.

In our comparison we find that the United States employed in the war of 1812 a total of 527,654 troops of which 50,000 were regulars. This was greatly in excess of military effort in the Revolution and tended to be in keeping with our increased population and military resources.

These comparisons are quoted to indicate why the war of 1812 has been overlooked by the British, and may seem of relatively slight importance to Great Britain while at the same time having lessons of vital importance to us.

For us the war of 1812 was a test (a generation after the Revolution) of our ability in a major crisis to mobilize and to utilize our military resources for the national defense. It was providential that our opponent had her attention diverted by the necessity to "save herself from the Napoleonic conqueror through her own exertion and Europe by her example."

The war of 1812 in a large measure because of British preoccupation with Napoleon, was for us a grand series of maneuvers where we could make grave mistakes and learn valuable lessons without paying too heavy penalties. It almost seems as though Providence had put the young republic through a period of testing to make it cognizant of its strength and weakness. The weaknesses brought out were many and great. The war is full of lessons of vital significance and importance to our national defense. Unfortunately it has not been studied adequately to that end except in the limited but important case of Major General Emory Upton.

While many of the mistakes were repeated in the bloody experiences of the Mexican War, the Civil War, the Spanish American War, and the World War I, many lessons were learned previous to the present war and have been applied therein. Many had yet to be learned and applied. Therefore, this book in spite of the date 1812, is modern and timely.

Major General Emory Upton in that incomparable classic of constructive military criticism, *The Military Policy of the United States*, devotes four of the thirty-one chapters of his book to the war of 1812, and the lessons to be derived therefrom. While General Upton's description and discussion in these four chapters might well be read in conjunction with Henry Adams' account of the war of 1812 as a commentary thereon, we recognize that Upton's account was written for a special purpose and cannot compare with the complete and vivid account of Henry Adams.

In selecting chapters or passages to be included, Major DeWeerd has kept in mind not only the fact that every school history of the United States discusses with more or less completeness and adequacy the causes of the war of 1812 and the character of the resulting peace, but that the military factors and events and particularly our mistakes and the valuable lessons to be derived therefrom have been presented



neither adequately nor in a form convenient and readily accessible to the general reader. These selected chapters, therefore, concentrate on the military and naval campaigns.

The fact that no adequate treatment of the 1812-14 period has been made available to the general reader, and that this excellent description (probably the most complete, authoritative and readable yet written), is buried in Henry Adams' seven-volume history, emphasizes the importance and value of this work of selection. It is part of the very commendable enterprise and initiative of the *Infantry Journal* to make conveniently available to military and other readers interesting and important military-historical literature which, otherwise, might be inaccessible or overlooked.

William James states: "Battles are only a sort of public verification of the mastery gained during 'peace' intervals." If this statement made by the author of the classic, "The Moral Equivalent of War" is true (and all military men and a large number of thoughtful civilians will agree as to its truth), it is not only highly desirable but vitally important that colleges and universities give their students an opportunity to verify by the study of battles, the types of government, culture and civilization of which the battles are the acid test. The indications are that after World War II many institutions of higher learning will be seeking for classroom use books of the character of Henry Adams' *The War of 1812*.

Corporal Hitler and Hirohito, as well as our own statesmen, military leaders and citizens, might well have read and studied with profit what Henry Adams had to say of the 1812-1815 affair. It was a very messy affair with particular reference to the army, full of mistakes of omission and commission, but it had its high lights, brilliant leadership, and gallantry that gave promise of what our soldiers and sailors are capable when properly trained and led, and supported by wise planning and a sound civilian organization. The uniformly brilliant operations of our navy under the trying limitations of men and material, might well have given an indication to a thoughtful enemy of the present mighty naval force created under conditions where these limitations no longer existed.

For the first time in our history we have in the present war applied a large number of the lessons of the war of 1812; adequate planning at the top; competent civilian organization and support; military leadership, non-political and highly educated and trained; equipment abundant and embodying the latest scientific and technical knowledge; and soldiers procured by the democratic process of Selective Service and trained, hardened, tempered, and fitted for the battlefield like fine tools

being prepared for the use of a master hand.

Our enemies have overlooked many pointers in the history of the war of 1812 that might have given them pause by indicating to them what the democratic process and the conditions of a new and free country can produce. They saw only the defects and the mistakes, and they were sufficiently many and glaring to obscure the rest of the picture.

What were some of these pointers? Many of us have overlooked them. While the frontier contribution of the hunting rifle and the deadly marksmanship that went with it are known, it is not generally known, as brought out by Adams, that the American developed a superiority in the use of artillery both on land and sea that was acknowledged by the British. "Instantly after the loss of the *Guerriere* the English discovered and complained that American gunnery was superior to their own." Contrary to most accounts and the general understanding, the Battle of New Orleans was in large measure an artillery battle. "The artillery battle of January 1, according to British accounts amply proved the superiority of American gunnery on that occasion, which was probably the fairest test during the war."

In the general use of weapons these frontiersmen developed a decided superiority over the highly trained troops of Great Britain. "The discovery caused great surprise and in both British services (Army and Navy) much attention was at once directed to improvement in artillery and musketry. Nothing could exceed the frankness with which Englishmen avowed their inferiority." Only those who know the Englishman's satisfaction with his own methods will appreciate to the full this latter statement.

"The American invention of the fast-sailing schooner or clipper was the more remarkable because of all American inventions, this alone sprang from direct competition with Europe. During ten centuries of struggle the nations of Europe had labored to obtain superiority over each other in ship construction; yet Americans instantly made improvements which gave them superiority, and which Europeans were unable immediately to imitate even after seeing them."

West Point comes in for a meed of credit that I believe has been overlooked, even by the authorities of that institution. The credit given West Point for training the outstanding leaders of the Civil War, General Scott's statement with reference to West Point's vital part in the Mexican War, and General Pershing's tribute to West Point in the World War I, are generally known. The following tribute paid by Adams is not generally known. "Perhaps without exaggeration the West Point Academy (founded 1802) might be said to

have decided next to the navy the result of the war . . . During the critical campaign of 1814, the West Point engineers doubled the capacity of the little American Army for resistance and introduced a new and scientific character into American life."

The fact that a free people in a new country, governed by the democratic process could achieve such results, might well have given our enemies pause had they read history correctly. On the other hand had we read history with understanding of our great mistakes and of why we made them, what quantities of blood and suffering might have been avoided.

Adams pays great and deserved tribute to the highly competent peace commission which we sent to negotiate the Treaty of Ghent. While the resultant treaty tended to indicate that the war was a draw, we found from reading the proceedings that our commission fought a long and stubborn battle against an incompetent British commission to prevent our loss of territory and the imposition of a humiliating peace which we might not have had either the will or the military force to oppose successfully. A lesson as to the importance of competent peace commissioners comes in here.

The objectivity of Henry Adams strikes an amusing note. His grandfather, John Quincy Adams, was on the commission. In evaluating the commission Adams places Gallatin as the outstanding leader in spite of John Quincy Adams as being the chairman. He also quite frankly enumerates the limitations of his grandfather in temperament and mentality.

The book is timely and interesting both for the general reader and for the military student.

A. GIBSON,  
Colonel, USA

*Ranger Mosby*, by Virgil Carrington Jones. (Chapel Hill: University of North Carolina Press. 1944. Pp. 326. \$3.50.)

In the military lore of the Confederacy the name of Mosby ranks close to that of Stuart, Forrest, Morgan and Wheeler. It is a name that bespeaks daring, intrepidity, and glamor. For Mosby was a Commando, vintage 1861-1865. Surprise was his principal weapon and speed was a side arm. His favorite mission was disruption of enemy communications and destruction of supply trains. He was a prize reconnoiterer, and information which he gleaned by stealth and boldness often gave shape to Confederate operations. Lee complimented this dashing raider in his official papers more often than any other subordinate.

Mosby's was never a large command. The maximum strength of his battalion was about 800, but he never took anything like this number on an expedition. Most of his raids were affairs involving from twelve to four-score followers. Mosby preferred small bands. They served better than hordes his companion objectives of secrecy, swiftness and shock.

The area of Mosby's operations was limited. His movements rarely reached beyond the portions of Loudoun, Fauquier and Fairfax Counties contained in the Bluemont-Ashby's Gap-Marshall-Aldie quadrilateral. In the 'sixties this country, whose control vacillated between North and South, was often referred to as Mosby's Confederacy.

Mosby had the reputation in the North as being a blood-thirsty terror. Mr. Jones shows this conception to be erroneous. The raider was rather a sentimental, family man, a patron of the classics, a person of refinement and good taste. Only his eyes were fierce, and they refused to flash their anger except under great provocation. True, he was involved in a shooting scrape which led to his expulsion from the University of Virginia, but his antagonist was apparently something of a bully who, by his insolent manner, asked for a shooting. Mosby had five men hung during the course of his raiding, but this was in retaliation for execution of a like number of his own followers. The partisan leader gave the lie to his blood-thirstiness by sneaking away from the retributive ceremonies. He was too young to have accumulated a full measure of hatred and cruelty. The war was more than half spent before he turned thirty.

Mosby lived long enough to read of the sinking of the *Lusitania*. In his old age he became dour, but to the veterans who gathered about him on occasion to swap stories of dimming forays he revealed nothing but warmth and kindness.

Mr. Jones is not a professional historian. His reluctance to use footnotes, even after direct quotations, will doubtless startle scholars who are accustomed to scrupulous adherence to conventions of documentation. Nor does the author always hew to strict objectivity. Fitzhugh Lee gets something of a drubbing on the score of Mosby's antipathy to him. There is a tendency also at times to claim too much for the hero of the narrative, as for instance the assertion that on Lee's refusal to disband Mosby's band in early 1864 "rested . . . a six-month extension of the life of the Confederate cause." This statement is at least open to argument.

But fellows of the footnote fraternity must doff their mortarboards to this journalist for his deftness at portraiture and his command of



the English language. Under his skilled and facile pen the great Ranger of the 'sixties lives and moves in recaptured grandeur and excitement. *Ranger Mosby* is a fascinating book.

BELL IRVIN WILEY,  
*Captain, AUS*

*Merchant Ships*, 1943, by E. C. Talbot-Booth, assisted by E. B. R. Sargent. (London: The Macmillan Company. 1944. \$19.00.)

This stout and interesting volume well deserves its title-page boast — "The Standard Work of Reference on Merchant Ships of the World." It is, for its field, what *Jane's Fighting Ships* is for warships. Serving a primary utilitarian purpose of aiding in the identification of vessels, it will likewise prove indispensable to any student of the modern merchant marines of the world. One marvels at the diligent industry which has assembled this remarkably complete wealth of detail on a generally elusive subject. It is perhaps the most ambitious of the many books of reference on shipping prepared by the author, "Late Paymaster Lieutenant-Commander, R.N.R."

Basic information concerning part of the world's merchant marines can be found in official documents such as the "List of Merchant Vessels of the United States" or in the wider scope of the registers of Lloyds, Bureau Veritas and the American Bureau of Shipping. Those, however, give only a minimum of bare statistics. Here, in addition, are found many informal comments, together with "over 900 half-tone illustrations and 2,400 line drawings of ships, 840 line drawings of House Flags and 1,520 line drawings of funnels for recognition." Altogether, it is not the sort of book which one reads through at a sitting, but which can afford a highly interesting quarter hour at any time in thumbing through its pages, in addition to yielding quickly specific information which may be sought.

The thousands of ships included in these pages represent the world's merchant fleets on the eve of the present war. Many of them now lie shattered at the bottom of the sea; the Liberty ships and other wartime replacements are not given—"It has not been permitted to include new ships nor to make mention of those lost. Censorship has of necessity been strict."

The first sections are arranged to facilitate recognition. The authors state that the book "has been supplied to H. M. Ships and Naval Establishments since before the war as the standard work on merchant ship recognition. During hostilities it has in addition been furnished to the Air Ministry for the same purpose and to other Ministries and to Admiralties of the Allied Nations."

After a brief section of "German, Italian and Japanese recognition silhouettes," prepared by Sargent, it turns to shipping details, classified by distinctive aspects. First come funnels—"Plain black funnels," "Black funnels with white letters," "Black funnels, white band," etc., with diagrams and a list of the companies or lines concerned. Funnel markings, however, can easily be painted over, and patrol vessels have need of more basic and less easily altered features. More substantial is the section based on such silhouettes. It includes line silhouettes of the major types, and it is here that one finds the basic data on individual vessels, not only the dimensional data of the registers, but also numerous interesting comments on distinctive features. At the head of the 2,208 types thus treated stands the *Aquitania* as the only four-funneled merchant ship; then come 24 with three funnels, 178 with two funnels, then the great mass of single-funneled ships, divided according to the numbers of masts, and finally a few vessels "with no funnels or very small funnels."

An equally substantial section of the book is devoted to the shipping companies of the world. The major entries generally include half-tone cuts of typical vessels, a reproduction of the house flag, a list of vessels with tonnage, distinguishing features common to the line, and occasionally, comments on important aspects of the company's development and activity. This section is particularly valuable to those interested in general shipping, as distinct from shipbuilding. It is arranged by national fleets, starting with the British Empire's impressive aggregation. The information is probably quite complete and accurate, although a sampling in the case of the Eastern Steamship Lines makes one wonder why the list includes the *Boston* but not her sister ship *New York*.

In addition to those major divisions, there are useful tables of shipbuilders, tug and salvage companies, world and national superlatives and "first times" and other material of that sort.

Altogether, anyone who has had to mine such information for himself out of the records can appreciate the value of this ambitious compilation. It is one book to which any student of the modern merchant marine must have access, while those who have simply a love of ships in general will find it a delightful addition to his maritime library.

ROBERT G. ALBION

*Princeton University*

*Through the Perilous Night*, by Joe James Custer. (New York: The Macmillan Company. 1944. Pp. 243. \$2.75.)

The Pacific War as seen by a newspaperman, with a lucky choice of

battle scenes ranging from the Marcus Island and Doolittle raids to the invasion of Guadalcanal. The author was a sports feature reporter, a resident of Honolulu at the time of Pearl Harbor, and a guest of the Navy on three epic battle missions. History is limited to what he himself saw, subsequent events on any operation being in the form of highly condensed precis. Melodrama is absent, there is no manipulation of accepted fiction; subject matter and the power of the reality vividly colors a sober text, and action flows swiftly, confined to minimum essentials and immediate results. The book will be found a permanent contribution to the history of the war.

The moments of great drama are the identification of Army B-25s on the *Hornet's* flightdeck, and the scenes of the night engagement in which the *Astoria*, *Vincennes*, *Quincy*, and *Canberra* were sunk. Custer himself became a battle casualty of the *Astoria*, narrowly escaping blindness as the war thus personalized itself for him. With this, the narrative, without losing suspense, is translated from the Iliad-like sequence of naval movements to the author's own odyssey, the book ending with his return to Pearl Harbor and recovery.

The loss of our heavy cruiser flotilla (USS *Chicago* severely damaged), was our greatest naval disaster since Pearl Harbor, and the circumstances attending it have not yet been revealed. Enough is given in this book to confirm that fleet units were unalerted and continued in "Condition 2" during most of the fight. As with all war correspondents, the author must keep within bounds, refrain from setting himself up as a judge of personnel or tactics, or exceeding censorship security; there can be no criticism of the book on this basis.

HYMAN ROUDMAN

*Army Service Forces, Records Control*

*The Tyrants' War and the Peoples' Peace*, by Ferdinand A. Hermens,  
(Chicago: University of Chicago Press. 1944. Pp. 244. \$2.75.)

Ferdinand A. Hermens argues for moderation in the peace settlement with Germany. Many will find his historical account of the reasons for German militarism, the rise of Naziism, and the application of Hitlerian domestic and foreign policies rather tedious. Many will find it more difficult to distinguish between the Nazis and the German people than this former member of the Catholic Center party. The distinction will be made, of course, if only because it will be impossible to draw up an indictment of a whole people. Complete military defeat will probably be the best medicine for Germany, will disillusion all but the most fanatic Germans, and will revive the liberal democratic forces

that can restore our faith in Germany's reformation.

To accomplish these ends, Professor Hermens would expropriate the Junker and other large estates, revive trade unions, revise the tariff system, destroy cartels, restore war loot, give up all conquests, and, insofar as it is feasible, pay in goods and services for the damage wrought by the war. He believes that Germany is under an obligation to punish war criminals, but would have them tried in German courts. He believes in a short military occupation during which the opponents of Naziism would have an opportunity to validate their claims to leadership. A provisional government by majority rule should be established at the earliest possible moment. Like the majority of anti-Nazi democrats, Professor Hermens disapproves of the partition or dismemberment of Germany for the reason that it would strengthen rather than weaken militant German nationalism. Neither can Germany be converted into an agrarian state. Her industry must be restored and can be useful in the physical reconstruction of Europe.

Professor Hermens is anxious that no opportunity will be afforded for the development of a Hitler legend. He believes that tremendous losses will deprive Germany of the ability and the will to engage in another costly war. The effects of the Nazi education of German youth, he argues, will prove to be ephemeral. A stern and honest peace based upon the ideals of the Atlantic Charter will be the most enduring because this settlement would not rely alone upon force, but German acceptance as well.

ELLIOTT CASSIDY,  
*War Department*

*By Sea and by Land*, by Lieutenant Earl Burton. (New York: Whitteley House. 1944. Pp. 215. \$2.75.)

A few months after Pearl Harbor an American officer spoke up at a staff meeting to say, "Gentlemen, if we are to win this war we are going to do it on the outskirts of civilization. We are going to have the subject of amphibious operations with us until the end." At the time he spoke no American landing had taken place anywhere. No precedents existed, no experienced troops were available, limited quantities of necessary weapons and equipment were at hand.

Since that time, as the author of this book points out, over thirty successful landings have taken place on enemy beaches—beaches in the Mediterranean, along the channel coast, and on the far Pacific Islands. This book describes in brisk and colorful phrases the development of our amphibious forces from the days when the first experiments were conducted in an alfalfa meadow to the recent landings in the



Marshalls. It is an illuminating story of initiative, resourcefulness, adaptability, discipline and courage that Lieutenant Burton has to tell, and he tells it well.

Every element in this new mode of warfare is carefully described; the intricate and detailed preliminary planning, the intensive training methods, the weapons and pieces of special equipment that have been developed. Excellent pictures scattered throughout the book supplement these verbal descriptions. In the final chapters all these elements are brought together in an explanation of the hypothetical landing of Lollipop which reveals the general evolution of any landing operation.

Actual operations both in the Atlantic and Pacific theatres are also considered. The extended description of the Sicilian campaign is especially interesting. Throughout the book the author calls upon past events to support or illuminate his narrative; his selection and organization of historical evidence of this kind is deft and perceptive.

Those who wish to understand the mechanics of the amphibious warfare that has placed us on the threshold of victory in every theatre can do no better than to read this entertaining, well written, and instructive book.

ELTING E. MORISON,  
*Lieutenant, USNR*

### SHORT REVIEWS

*This Day's Madness*, by Mercedes Roseberry. (New York: The Macmillan Company. 1944. Pp. 262. \$2.00.)

In the preface to *This Day's Madness* Miss Roseberry states that the book is intended as an informal front-page history of today. Certainly it is all of that. Complete with stories of the Pentagon Building, jokes and cartoons on rationing, women welders, and leg make-up, it is truly as timely as the headline "Allies Recapture Paris."

Unfortunately most Americans today are living too deeply in the forest to be able to see the trees. That is, we are all too engrossed in the actual problems of the "home-front" to appreciate fully the fine details that the author has lavished on the book. Seemingly she has spared no efforts or pains to compile the exact information or statistics of war agencies and businesses.

As time goes on, this book will become increasingly valuable as a guide to American reactions to war. Just as *Only Yesterday* is now studied for an insight into the "raving twenties," so, no doubt, will this be useful as a study of the hectic years of the early forties.

LUCY E. WEIDMAN  
*National Archives*

*The Marine Corps Reader*, by Colonel Clyde H. Metcalf, Editor. (New York: G. P. Putnam's Sons. 1944. Pp. 600. \$3.00.)

This authoritative reader presents a vivid picture of the United States Marine Corps at war. Life from training period to combat is noted from first hand observation. The reasons for their outstanding achievements in amphibious operations are found in the

first part of the work. The esprit de corps has been strikingly presented in Arthur J. Burks' *A Marine Never Dies*, and the two selections by the late Colonel John W. Thomason, *Red Pants* and *Crossing the Line With Pershing*, further enliven this record. The story of the fifteen marine regiments is described succinctly and in the appendix are to be found the heroes of the corps with an account of the engagements for which they were decorated. Ably has the editor portrayed olden times in the corps. The training of marines, marine aviators and the women reserve are described as a background for narratives of participation in the events of the war. Included are contributions by Hanson Baldwin, John Hersey, and others.

This permanent work is an outstanding anthology which accomplishes its purpose of telling the story of the United States Marine Corps.

G. J. STANSFIELD  
Washington, D. C.

### NOTES

*A Short History of the Army and Navy*, by Fletcher Pratt. (Washington: *Infantry Journal*, 1944. Pp. 262. 25c.) This compact history has permanent value in its brilliant summation of the panorama of American military history. Written for the general public as a new work for the Fighting Forces—Penguin Series, it makes available a wealth of information about our armed-forces. In proportion about half the volume is devoted to a discussion of the Civil War while the period prior to 1861 receives more attention than that following 1865. Its twenty-four maps provide further detail about campaigns through the first world war. The author has given this work clarity and force in his narration providing good reading.

Two of the most interesting military histories that have been published are *The Royal Marines, 1939-1943*. (London: His Majesty's Stationery Office. 1944. Pp. 80. Nine pence.) and *The Eighth Army, 1941-1943*. (London: His Majesty's Stationery Office. 1944. Pp. 103. One shilling.) These succinct narratives are exceptionally well illustrated and recount their respective stories in a noteworthy manner.

*American Battle Painting, 1776-1918*, exhibited in Washington at the National Gallery of Art and to be exhibited at the Museum of Modern Art in New York, is the first known exhibition presenting military painting as a common tradition from the American Revolution through World War I. Its unusual catalogue (Washington: 1944. Pp. 60. 50c.) contains two color plates and thirty-eight illustrations in black and white which provide a balanced panorama of its development. Lincoln Kirsten summarizes the history of these paintings. A similar collection of American Battle Art was shown at the Library of Congress.

*U. S. Aviation in Wartime*, compiled by the Office of War Information, (Washington: American Council on Public Affairs. 1944. Pp. 203. \$2.50.) is an authoritative account of achievements and progress in this war. Chapters are devoted to combat performance in 1942 and 1943, Army and Navy transport planes and operations, Army Air Forces, the Civil Air Patrol, and commercial air lines. Post war probabilities are indicated, and allied and enemy aircraft are illustrated.

Military Service has just published the tenth edition of its well known *Officers Guide* (Harrisburg: Military Service Publishing Company. 1944. Pp. 553. \$2.50.)

*Handbook to Army Regulations*, by Lt. Colonel Walter Sezudlo. (Harrisburg: Military Service Publishing Company. 1944. Pp. 305. \$2.50.) is a handbook devoted to regulations and administrative directives. The work is arranged alphabetically by subject, condensed, digested and cross referenced and should serve as a valuable reference guide.

*The Infantry Journal* continues to issue new items in its list of pocket size books of particular value to the soldier. *Combat First Aid* (Pp. 101. 25c.) is a well illustrated text, offering instruction in first aid in battle. *Fear in Battle*, by John Pollard (Pp. 64. 25c.) is based upon experiments in combat psychology undertaken at the Institute of Human Relations at Yale University. *So You're Going Overseas*, by Captain Stockbridge H. Barker (Pp. 113. 25c.) is a value source of information for the soldier going overseas. *The War in Outline* is carried to March 31, 1944 (Pp. 223. 25c.)

and *Gas Warfare* by Brigadier General Alden H. Waitt is completely revised. A new Fighting Force reprint is *The Nazi State* by William Ebenstein (Pp. 335. 25c.), an excellent survey of Germany, reviewing the culture, politics, and economics of that nation under Nazi rule.

*Modern Reconnaissance*, by Colonel Edwin M. Sumner, Editor. (Harrisburg: Military Service Publishing Company. 1944. Pp. 230. \$1.50.), represents an anthology of articles appearing in the *Cavalry Journal*. They include lessons gained from training and combat experience in the United States Army and from Russian, German and Japanese warfare from Tunisia to the South Pacific. This volume ably fulfills a need for practical combat experience under conditions of modern warfare.

The Naval Historical Foundation has published its first reprint on an important and rare volume in *Rules for the Regulation of the Navy of the United Colonies of North America*. (Pp. 8. \$1.00.) This facsimile was reproduced from the sole known copy of the Regulations of 1775 in the Yale University Library.

*America's Post-War Merchant Marine Forecast*. (New York: *Marine News*. 1944. Pp. 278.) presents a compilation of articles by leading government and industrial officials with emphasis placed upon shipping subsidiaries and their beneficial effect upon the post-war Merchant Marine.

*Boot*, by Corporal Gilbert P. Bailey, USMCR. (New York: The Macmillan Company. 1944. Pp. 131. \$2.50.) is a well illustrated account of the training of a Marine at Parris Island, South Carolina. Text and photographs record this process of becoming a Marine.

## OTHER RECENT BOOKS

### INSTITUTIONS AND CULTURE

#### *Contemporary Scene*

*Chiang Kai-Shek, Asia's Man of Destiny*, by H. H. Chung. (Garden City, New York: Doubleday, Doran and Company. 1944. Pp. 372. \$3.50.)

*Watching the World*, by Raymond Clapper. (New York: Whittlesey House, McGraw-Hill. 1944. Pp. 382. \$3.00.)

*Asia's Land and Peoples*, by George B. Cressey. (New York: Whittlesey House, McGraw-Hill. 1944. Pp. 619. \$6.00.)

*State of the Nation*, by John Dos Passos. (Boston: Houghton Mifflin Company. 1944. Pp. 343. \$3.00.)

*Islands of the East Indies*, by Hawthorne Daniel. (New York: G. P. Putnam Sons. 1944. Pp. 279. \$2.50.)

*The Arab Heritage*, by Nabib A. Faris, Editor. (Princeton, New Jersey: Princeton University Press. 1944. Pp. 289. \$3.00.)

*Russia Then and Always*, by Nina V. and Fillmore Hyde. (New York: Coward McCann, Incorporated. 1944. Pp. 339. \$3.00.)

*Via Diplomatic Pouch*, by Douglas P. Miller. New York: Didier Publishers. 1944. Pp. 248. \$3.00.)

*Traveller From Tokyo*, by John Morris. (New York: Sheridan House. 1944. Pp. 253. \$2.75.)

*Gateway to Asia: Sinkiang, Frontier of the Chinese Far West*, by Martin R. Norins. (New York: John Day Company. 1944. Pp. 200. \$2.75.)

*The Pacific World*, by Henry F. Osborn, Editor. (New York: W. W. Norton Company, 1944. Pp. 218. \$3.00.)

*Alaskan Backdoor to Japan*, by Philip Paneth. (Forest Hills, New York: Transatlantic Arts. 1944. Pp. 108. \$2.75.)

*Headquarters Budapest*, by Robert Parker. (New York: Farrar and Rinehart, Incorporated. 1944. Pp. 345. \$3.00.)

- Argentina*, by Henry A. Phillips. (New York: Hastings House. 1944. Pp. 246. \$2.50.)
- Germany, the Last Phase*, by Gunner T. Pihl. (New York: Alfred A. Knopf, Incorporated. 1944. Pp. 322. \$3.00.)
- Argentine Diary*, by Ray Joseph. (New York: Random House. 1944. Pp. 404. \$3.00.)
- The French Colonies*, by Jacques Stern. (New York: Didier Publishers. 1944. Pp. 320. \$3.00.)

## POST-WAR DEVELOPMENTS

- Canada After the War*, by Alexander Brady and Francis R. Scott, Editors. (New York: The Macmillan Company. 1944. Pp. 357. \$4.25.)
- Peace, Plenty and Petroleum*, by Benjamin T. Brooks. (Lancaster, Pennsylvania: Jacques Cattel Press. 1944. Pp. 203. \$2.50.)
- The Rest of Your Life*, by Leo M. Cherne. (Garden City, New York: Doubleday, Doran and Company. 1944. Pp. 312. \$2.75.)
- China Looks Forward*, by Sun Fo. (New York: John Day Company. 1944. Pp. 292. \$3.00.)
- The Super-Powers*, by William T. R. Fox. (New York: Harcourt Brace and Company. 1944. Pp. 184. \$2.00.)
- The Road to Foreign Policy*, by Hugh Gibson. (Garden City, New York: Doubleday, Doran and Company. 1944. Pp. 262. \$2.50.)
- The Liquidation of War Production*, by Abraham Kaplan. (New York: McGraw-Hill. 1944. Pp. 148. \$1.50.)
- U. S. War Aims*, by Walter Lippmann. (Boston: Little Brown and Company. 1944. Pp. 247. \$1.50.)
- Report on Demobilization*, by James R. Mock and Evangeline W. Thurber. (Norman: University of Oklahoma Press. 1944. Pp. 268. \$3.00.)
- Russia and the Peace*, by Sir Bernard Pares. (New York: The Macmillan Company. 1944. Pp. 304. \$2.50.)
- Agenda for Peace*, by Ernest M. Patterson, Editor. (Philadelphia: American Academy of Political and Social Science. 1944. Pp. 179. \$2.50.)
- Prescription for Permanent Peace*, by William S. Sadler. (Chicago: Wilson and Follett. 1944. Pp. 202. \$2.50.)
- You and the Peace*, by Gerald Shirlaw and L. E. Jones. (New York: The Macmillan Company. 1944. Pp. 182. \$1.75.)
- The Coming Struggle for Peace*, by Andre Visson. (New York: Viking Press. 1944. Pp. 311. \$3.00.)
- The Veteran Comes Back*, by Willard W. Waller. (New York: Dryden Press. 1944. Pp. 329. \$2.75.)

## NATIONAL WARFARE

- Woodrow Wilson and the Last Peace*, by Thomas A. Bailey. (New York: The Macmillan Company. 1944. Pp. 393. \$3.00.)
- Black Mail*, by Henry R. Hoke. (New York: Readers Book Service. 1944. Pp. 89. \$1.00.)
- Great Britain, France and the German Problems, 1918-1939*, by W. M. Jordan. (New York: Oxford University Press. 1944. Pp. 248. \$4.50.)
- America and Two Wars*, by Dexter Perkins. (Boston: Little Brown and Company. 1944. Pp. 219. \$2.00.)



*Global Geography*, by George T. Renner. (New York: Thomas Y. Crowell and Company. 1944. Pp. 688. \$5.00.)

*The Earth and the State; a Study of Political Geography*, by Derwent S. Whittlesey. (New York: Henry Holt and Company. 1944. Pp. 635. \$3.75.)

#### MILITARY AND NAVAL OPERATIONS, WORLD WAR II

*Gore and Glory*, by Captain William Crawford, Jr. (Philadelphia: David McKay. 1944. Pp. 192. \$2.00.)

*Letters Home*, by Mrs. Minna K. Curtiss. (Boston: Little Brown and Company. 1944. Pp. 328. \$2.75.)

*The Six Weeks War; France May 10-June 25, 1940*, by Theodore Draper. (New York: Viking Press. 1944. Pp. 352. \$3.00.)

*Army of Shadows*, by Joseph Kessel. (New York: Alfred A. Knopf, Incorporated. 1944. Pp. 166. \$2.00.)

*The War, Fourth Year*, by Edgar W. McInnis. (New York: Oxford University Press. 1944. Pp. 426. \$2.50.)

*The Truth About DeGaulle*, by Andre Rivelop. (New York: Arco Publishing Company. 1944. Pp. 80. \$2.00.)

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## NOTES AND ANTIQUITIES

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### MILITARY HIGHWAYS

BY CHARLES B. QUATTLEBAUM

The present war, emphasizing mobility of movement through the wide employment of mechanized and motorized forces, once again has demonstrated the significance of military highways in the conduct of war. Today, as in the past, a good commercial thoroughfare in peace time may become a military highway of great strategical importance in war time.

The value of military highways was recognized by men of arms centuries before the Christian Era. One celebrated Babylonian route used by Alexander the Great is styled by Arrian, the Greek historian, as the "great military road." And yet notwithstanding successes achieved through utilization of such facilities the deterioration of Alexander's empire has been attributed largely to his failure to construct adequate highways throughout conquered territory. The Carthaginians, who developed a scientifically constructed road system that permitted them for four hundred years to hold their own against the Greeks and Romans, introduced the first system of highways for commercial and military use.

Much has been written about the great military highways built by the Romans, who learned from the Carthaginians both the art and value of military roadbuilding. By means of remarkable highways over which their armies moved, the Romans, with an entire military establishment never exceeding 400,000 men, were able to control the vast conquered territories. The modern road systems of France, Britain, and other countries are based upon roads built by the Romans.

Military highway construction, from the Roman period to that of the Napoleonic Era made no outstanding progress—either qualitatively or quantitatively. A major revival in this activity took place during Napoleon's rise to power when roads again were constructed primarily for purposes of conquest.

### MODERN NATIONAL DEVELOPMENTS

#### *France*

Under Napoleon I military road construction developed on a mag-

nificent scale both in France and in the countries conquered by him. In order to facilitate the swift movement of his armies, Napoleon reconstructed many of the old Roman ways, built new roads, and instituted the excellent modern highway system of France.

Perhaps the most famous road built by order of Napoleon is the Simplon Pass over the Alps into Italy. Having encountered tremendous difficulties in leading his army over the St. Bernard Pass to attack the Austrians in 1800, he succeeded in getting construction started on the Simplon road the following year. The object of Napoleon in building this road is indicated in his repeated questions to the superintending engineer (*"Le canon quand pourra-t-il passer au Simplon?"*) showing that his thoughts were bent on war rather than on peace or commerce. The building of this road was considered a stupendous result of engineering skill, over 30,000 men being employed in its construction which required 611 bridges, terraces of masonry miles in length, and ten avalanche galleries, either quarried or built. Never less than twenty-five feet wide, the road ascends to a height of 6,636 feet with a slope not exceeding one foot in thirteen.

A national program of highway construction was set on December 16, 1811, when Napoleon issued a decree establishing a uniform system of highway administration, dividing the roads into imperial and departmental routes, and fixing administrative responsibility upon the Federal Government and the Departments. This decree designated fourteen first class imperial roads leading from Paris to the principal frontier cities, thirteen second class imperial roads from Paris to less important frontier cities, and 202 third class roads connecting interior cities. The total length of these roads was about 17,000 miles, while the 1,165 departmental roads covered about 12,000 miles. Between 1804 and 1813 the national expenditure for roads and bridges in France is estimated at 300 million francs.

The superb roads of France since the time of Napoleon have contributed potently to the outstanding material development and unusual financial elasticity of the country. Although these roads have come down through history as military highways, and although they were certainly designed for military movements, they also made possible the administration of a great empire and have ever since stimulated commerce. Napoleon said that he feared popular insurrections due to economic causes, rather than political uprisings. Recognizing the fact that an adequate transportation system is a fundamental requirement for a nation large in physical dimensions, Napoleon instituted a regime

of highway construction and maintenance for which France has since been famous.

American soldiers in France during both World War I and the present war have been impressed with the uniform excellence of the roads. The rapid movement of the Allied armies in France in August 1944, movement unmatched for rapidity in any war in history, was made possible because of the splendid system of highways in that country.

### *Germany*

Upon the foundation of the German imperial government in 1871, it took over the control of railways for military transportation. The highways, considered then to be of lesser importance for military use, were relegated to the state governments and were maintained with comparative indifference until Hitler came to power in 1933. At that time the total length of roads and highways in Germany was about 130,000 miles. In general, these roads were inadequate for motor traffic.

Under the leadership of Adolph Hitler, the National Socialist Party in 1933 began a tremendous program of *Autobahn* or motorway construction under a central authority. The original scheme calling for 4,300 miles of roadways suitable for fast military transportation purposes, was expanded to cover 6,250 miles. These remarkable highways are designed for speeds of 100 miles an hour over long distances. They are separate and distinct from the previously existing roads with which they are connected at only carefully selected points. With a width standardized at about 80 feet these motorways have every possible provision for safety of high speed travel.

In December 1938, three thousand road laborers representing the state organization known as the *Autobahn* met in Berlin to celebrate the completion of the 3,000th kilometer in the super-highway system of the Third Reich. Roger Shaw, writing in *Current History* in February, 1939, pointed out that the principal object in building these roads was purely military, and that the *Autobahn* is designed to shuttle troops here and there at dizzy speeds.

As developed by the genius of the German engineer Fritz Todt, the *Autobahn* system enables motor vehicles to travel at high speed from north, south, east, or west across Germany without passing through a single village or meeting a crossroad.

In 1939 Germany's military road-building enterprise was extending far beyond the borders of the Third Reich, with roads leading into Czechoslovakia and thence through Rumania to the important coastal

city of Odessa in the Soviet Ukraine.

Some of the construction requirements and regulations of the German trunk roads were the following: (1) Separation of opposing traffic streams, accomplished by the construction of dual one-way traffic ways with grass boulevards between them; (2) Total exclusion of pedestrian, cycle, and animal traffic; (3) Separation of all grade crossings by the use of over or under bridges; (4) Suppression of all advertisements, poles, and other objects near the highway which might distract the attention of drivers; (5) Installation of a clear, simple system of road signals.

The construction of these roads was financed by a gasoline tax and funds from the general levy which might otherwise have been used for the dole or relief.

German "large space" speculators have envisioned a transcontinental system of rapid transportation in the "new Europe." Satellites of Germany like Hungary have been led to continue the planning of super-highways designed to connect with German routes. While the war has stopped most construction of new roads, operations have continued on the "Bird Flight Line" from Hamburg to Copenhagen.

In a Reichstag speech on September 30, 1942, Hitler referred to the inadequacy of roads in Russia and boasted of the work being done by the German "Organization Todt" in constructing gigantic roads in Soviet territory overrun by the Germans. In June, 1942, Todt's successor, Speer, as head of the Todt organization, had proclaimed that a network of highways had been constructed to carry supplies to every possible front on the western European coast.

### *Britain*

Although modern highway construction in Great Britain has developed mainly to meet commercial needs, the road system is basically military, being built upon the old Roman roads; also, some modern roads have been built in Britain for definite military purposes. The reputation of General Wade in Scotland as a road builder has endured for more than two centuries. The construction of General Wade's roads generally stimulated road-improvement in Scotland. Although designed specifically for strategic purposes, the Wade roads so facilitated transport as to demonstrate the advantages of providing a better system of communications throughout Scotland.

At the beginning of the nineteenth century, English roads were as a whole bad. Under the scientific principles of Telford and McAdam, however, the turnpike system was extended until at the time of the



death of McAdam in 1836, no less than 1,100 road trusts were in existence. With the dawn of the railway era, a long period of neglect of the turnpikes began. The present system of road-administration in Britain has evolved from the Public Health Acts of 1848 and 1875, the Local Government Acts of 1888 and 1894, and the Road Improvement Funds Act of 1907 which established the Road Board. The Road Transport Board was formed during the first World War and continued to exist after the war as a department of the Ministry of Transport. The activity of this board brought about a revival of road improvement which had been found essential for military operations.

### *United States*

The first American roads were military, the army being the principal instrumentality of road construction in early American history. Existing Indian trails or warpaths were usually followed through the wilderness in the construction of roads necessary for the movement of supply trains and artillery. These military routes were used as migratory wagon roads by the early settlers, who soon converted them to commercial purposes.

One of the numerous Indian trails, known as the Great Indian Warpath, ran from the Creek country in Alabama and Georgia through the East Tennessee Cherokee settlements to Long Island in the Holston River, dividing near what is now Kingsport, Tennessee. The Chesapeake branch led off to the northeast, into and beyond Pennsylvania. The Ohio branch led to Indian settlements in eastern Ohio and western Pennsylvania. Along this trail red warriors passed to and fro. From the north the Iroquois sallied forth against the Cherokee, Catawba, or other southern tribes, and from the South often went war parties of the latter nations to harass their northern enemies. George Washington mentioned encountering an Indian war party on this trail in 1770.

In 1753 Washington had crossed the Alleghenies on a trip from Virginia to Fort Duquesne over a trail blazed by the Indian Memacolin. A part of the same route was followed by the British General Braddock on his ill-fated expedition against Fort Duquesne in 1755. His march required the cutting of a 12 foot roadway through the forest, bridging streams, and building causeways. Few roads have ever played so important a part in the development of any continent. During the latter half of the eighteenth century this was one of the principal roads into the Ohio Valley; and when the War Department built the Cumberland road at the beginning of the nineteenth century, the general align-

ment of Braddock's road was followed from Cumberland to the last range of the Alleghenies. In fact, in some localities this great national highway was built upon the very bed of Braddock's road.

In 1758 General John Forbes, leading an expedition to oust the French and Indians from Fort Duquesne (later Pittsburgh), cut a military highway following an old Indian trail across the Alleghenies. The character of a permanent conquest was given the expedition by the construction of blockhouses along the route to safeguard communications with the East. Since this road was the only fortified route to the Ohio it soon became a highway of western expansion.

Military roads were constructed in the Mississippi basin during the conquest of the old Northwest by George Rogers Clark in 1778 and 1779, and by Josiah Harmar, Arthur St. Clair and General Anthony Wayne in 1790, 1791 and 1793-94. Wayne's campaign of 1793 and 1794 was peculiarly interesting from the standpoint of road construction. The Indians were strongly impressed and were influenced toward peace by awe of the "Whirlwind" which advanced through the forests as though ever in pursuit of a foe.

Many roads in the United States have been built by the War Department to aid the national defense, facilitate access to public lands and improve communications with new settlements. In some cases pioneer routes such as the Santa Fe, Oregon and California trails have been developed by the Army Engineers into modern highways.

For many years the Army Engineers were the only group of men technically qualified to carry out a program of road building in this country. They constructed many of the early commercial highways as well as military roads.

Modern war plans generally contemplate the fullest possible use of existing roads in the theater of operations, construction of new roads being held to the minimum. However, some permanent road building from supply points is often necessary along with emergency construction in advanced areas. Since time of construction is the first consideration in military operations, improvements are designed for immediate needs rather than for permanence. Thus during the War Between the States and during the first World War existing roads were principally used for military operations, and few roads were constructed specifically for military purposes in the United States, other than those within Army camps.

Planning of a strategic highway system had its origin shortly after the passage of the Federal Highway Act of 1921, when the Public Roads Administration (then the Bureau of Public Roads) sought the

advice of the War Department on the location and character of highways necessary to meet the military requirements for national defense. A new development occurred in 1935 when a War Department study of highways, based on previous collaborations of the Bureau of Public Roads with the War Department General Staff, established national defense highway priorities of improvement to be considered in future by the Bureau in approving road programs involving the use of Federal funds. Since the beginning of the present war, approval of new projects has been limited to those of direct and immediate importance in the war effort. A considerable program of direct war importance has been largely carried out. Available Federal-aid funds and \$125,000,000 authorized under the Defense Highway Act of 1941, supplemented on July 2, 1942, by \$160,000,000, were used to build access roads to Army and Navy training and concentration areas and war industries. Federal-aid funds are being used to correct critical weaknesses in the main highways of great importance to war transport. Only projects certified by Federal officials in charge of war operations are being undertaken.

Fortunately, in the United States highway routes which are currently important to the prosecution of the war are in general the routes which will be commercially important in peace time.

## RECENT INTERNATIONAL DEVELOPMENTS

### *The Alaska Highway*

Although the desirability of connecting the United States highway system with Alaska through British Columbia had been evident for many years, no definite, practical proposal for a route was made until 1928, when Donald MacDonald, associate engineer of the Alaska Road Commission, proposed a course from Hazelton to Fairbanks. Mr. MacDonald organized an International Highway Association which by 1930 had obtained for the project the official support of Herbert Hoover, President of the United States, and Premier Tomlie of British Columbia.

In 1933 the first American Commission to Study the Proposed Highway to Alaska reported many important facts and estimates relating to the project. It appears that the road was on the verge of construction, when it was lost in the general uncertainties of the depression.

By authority of an Act of Congress approved May 31, 1938, the President appointed five men to the Alaskan International Highway Commission assigned to cooperate with a similar commission appointed

by the Dominion of Canada in a study for the survey, location and construction of the proposed Alaskan highway. The United States commission in a lengthy report recommended the construction of the road as a worthy and feasible project.

With the bombing of Pearl Harbor and the invasion of the Aleutian Islands by the Japanese, the necessity for the United States to build a military road to Alaska became evident.

On March 6, 1942, the Canadian government announced its approval of the recommendation of the Permanent Joint Board of Defense—United States and Canada—that a highway be built, and accepted the offer of the United States to construct it. On the same date Major General Eugene Reynolds, Chief of Engineers, U. S. Army, addressed a request to the Federal Works Agency that the Public Roads Administration cooperate in the location and construction of the highway. An agreement was reached under which the Public Roads Administration was to make reconnaissance and location surveys, prepare plans, award contracts, or otherwise arrange for construction, and supervise construction.

The War Department was to construct a truck trail road, following as near as might be practicable the route selected after reconnaissance surveys.

Largely by the use of aerial reconnaissance, a route was quickly determined to serve the dual purpose of a supply line to Alaska and a feeder road to a chain of airports established in 1941 through Canada and Alaska by the United States and Canadian governments. Covering vast stretches of unmapped wilderness, the 1,671-mile international highway from Dawson Creek, British Columbia, to Fairbanks, Alaska, was opened within about six months, an engineering feat of first magnitude. Begun in March, 1942, the road was ready by October for truck traffic over its entire length.

This extraordinary accomplishment in military road-building was expedited by: (a) initiating construction at various points along the route at the same time, crews and equipment having been transported to strategic locations in March, before the spring thaws made trails and rivers impassible, (b) use of aerial surveys in conjunction with ground reconnaissance, and (c) employment of bulldozers and other heavy road-building equipment. By carrying on all operations day and night, seven days a week, the workmen were able to push forward the road at the rate of eight miles per day. Many problems of organization and supply were mastered in the operations.

Seven army engineer regiments comprising about 10,000 men, two



topographical engineer companies, two light pontoon companies, and several other smaller service units were employed in the construction of this road, besides a varying number of civilian employees, probably running to a maximum of 6,000, under the direction of the Public Roads Administration.

Bridge-building presented peculiar problems, including the construction of one bridge 2,400 feet long, and another over the White River, which contrary to the usual custom of rivers, freezes upward from the bottom. The difficulties of building along the mountainous coast according to the first plans were avoided, however, by the adoption of a route inside the coastal range, such a route being, furthermore, much more easily defensible from invasion.

Weather conditions added much to the hardships of the troops in building the road. The snowstorms and sub-zero temperatures of early spring, when the work was begun, gave way to the deep slush of spring thaws, followed by summer heat bringing swarms of mosquitoes and biting flies.

Altogether the construction of this road in so short a time in spite of varied difficulties has been one of the most brilliant achievements of the Corps of Engineers.

In July 1943 Fergus Hoffman wrote in the *Christian Science Monitor*: "It may be years before the Alaska Highway is the answer to the tourist's dreams, but even now it is the answer to the Army's dream—a usable supply route to Alaska."

About the same time, Honorable George Black, K. C., M. P., wrote in *Industrial Canada*, regarding the future economic value of this road: "Contractors for Public Roads Administration of the United States are now following up the preliminary work of the American Army and making it a permanent highway.

"That highway and the piping of Canadian oil from Fort Norman to Whitehorse, where an oil refinery is being built, and piping it thence to Fairbanks, Alaska, will develop that vast unprospected, unexamined northern country, some of it as not yet mapped, faster and more thoroughly than we have ever dreamed of it being done."

### *The Pan American Highway*

Writing in the *Geographical Review* in January 1943, Mr. William E. Rudolph said of the Pan American Highway: "Most important of all strategic highways, from the long-time point of view, is that connecting the United States with Latin-American countries. This system of routes designed to connect all the countries of the Americas will be,

when completed, a means of knitting together these countries, facilitating the internal exchange of commodities and otherwise developing national economy.

The first suggestion for a Pan American system of highways was made at the Fifth International Conference of American States which met in Santiago, Chile, in 1923. A resolution of this Conference called for an official Pan American Highway Congress. This Congress, comprised of engineers from nineteen Latin-American nations, met in Washington in 1924. The Pan American Highway was the inspiration of the group. A series of conferences, resolutions, official visits, and reconnaissances have followed.

Until 1942, that part of the Pan American Highway which is located in Mexico and Central America, known as the Inter-American Highway, was being financed and built mainly by the countries through which it passes, but with some technical and financial assistance from the United States. Each affected country had constructed some part of the road. Three-fifths, or nearly 2,000 miles of the approximately 3,400 miles of road from Texas to the Panama Canal had opened for all-weather travel in unconnected sections.

In 1942 negotiations were completed and construction was started designed to open an emergency truck load largely on the final line, but with some alternate sections, through Central America to the Canal Zone. It was expected that by June, 1944, continuous main-line or alternate sections of the Inter-American Highway in Central America would be in shape for emergency trucking operations on a scale expected to meet probable demands. Before June 1944, however, the emergency aspect of the construction was discontinued, and work resumed on the permanent road, which will probably be opened some time in 1945.

On May 1, 1941, President Roosevelt had commended to the favorable consideration of Congress a report from the Secretary of State and a draft of proposed legislation to enable the United States to co-operate with the governments of the American republics in Central America in the survey and construction of the proposed Inter-American highway within the borders of those republics. The report pointed out the value of such a highway as an aid to national defense, and called attention to other desirable outcomes such as (1) improved transportation within and between the several countries and the United States, (2) development of new lands and new natural resources, and increased consumption of American imports, (3) increased employment and maintenance of economic structure, (4) increased tourist traffic

and (5) increased market for American automobiles, parts, and garage equipment.

A considerable part of the funds needed to close gaps in Central America was made available through the Inter-American Highway Act passed by the Congress of the United States in 1941. This Act authorized the appropriation of \$20,000,000 to be used in closing gaps in the section of the highway from the southern border of Mexico to Panama. Because of the importance of the Inter-American Highway in giving access to raw materials and tropical products, as well as for continental defense, the War Department of the United States has spent, in addition, more than \$20,000,000 in building 600 to 800 miles of pioneer road along other Central American sections of the highway which cannot be immediately built under the cooperative program.

The completed highway will open up a large area of the North American continent capable of producing many commodities for which the United States has been dependent on the Far East—rubber, wool, hard rice, tea, cinnamon, camphor, quinine, copra, oils, varnish gums, abaca hemp, and others. Together with lateral roads that are developing from it the highway will greatly stimulate the productive capacity of Central America and facilitate an exchange of production among the various Central American countries.

In the Panama Canal Zone, the Inter-American highway connects with the Trans-Isthmian route between the terminal cities of the Canal, Cristobal and Balboa, and also between the two Panamanian cities of Colon and Panama. Working day and night, the United States Public Roads Administration completed in 1942 two highways of great value to the defense of the Panama Canal, namely, the Trans-Isthmian Highway, and the Chorrera-Rio Hato Highway, a section of the Inter-American Highway leading to important air defense for the Canal.

In 1941 about three-fourths of the South American section of the Pan American Highway system was passable at all seasons. Although the mileage added to the system in fiscal year 1942 was not impressive, a firm basis was laid for more definite future progress. While various short sections in South America, particularly in Ecuador and Peru, were constructed, and other sections improved, in 1943, the difficulty of obtaining necessary materials has kept the rate of progress much below the rate annual national appropriations indicate is normal.

Over the completed portions of this highway system a growing commerce has already developed. This intercommunication has caused

a meeting of minds and the beginning of a common culture, and has made possible an extraordinary solidarity against aggression.

### *The Burma Road*

Probably no strategic highway of today has so captured the public imagination as the Burma Road. Built within fourteen months by about 200,000 Chinese men, women and children using only the crudest of tools, the road extends from Lashio, Burma, to Kunming, China, over a distance of 726 miles. After the Japanese cut off China's sources of supply from the China Sea, this road was constructed to serve as a munitions supply artery from the outside world.

Known as "China's life line," the road was officially opened in March 1939. Except while closed by the British from July to October, 1940, it was used as a truck route until again closed, this time by the invading Japanese, in April, 1942.

Following the outbreak of the war in eastern China in July, 1937, the Chinese government determined upon the construction of a military road to Burma. The difficulties, however, seemed insurmountable. Two routes were considered, both necessarily crossing a number of mountain ranges separated by some of the deepest canyons in the world. The longer route was chosen because it could make use of about 263 miles of provincial road already constructed. The new sections were built through rugged mountain country. Within one forty-mile stretch the route dips from 7,200 feet to 2,500 feet and rises again to 7,500 feet. Twisting and contorting through most of its length, the road when completed was most hazardous to travel. A trip over it usually required ten days of nerve-sapping concentration on the part of the driver of a motor vehicle.

With a subsidy amounting to less than two million dollars from the central government of China, the Yunnan provincial government took charge of the construction of the road. Most of the work was done by the people of the province, each county being responsible for building its section of the road and furnishing its own quota of workers. The completion of the task was the more remarkable because of the lack of modern machinery. An American engineer studying the construction is said to have exclaimed: "My God, they scratched these roads out of the mountains with their fingernails!" Working in one of the most malarious and mountainous provinces of China, hundreds, perhaps thousands, of men and women lost their lives in helping to build this nine-to-sixteen foot road over the ridges and through the canyons of



Yunnan. Meanwhile the British cooperated by extending their own roads in Burma to the Chinese border.

About 3,000 American trucks were purchased and put into operation over this road by the Southwest Transportation Company, organized by the Chinese government to have a monopoly on freight traffic over the route. Continuous traffic was possible only during the dry season. During the rainy season from July to September, landslides, washouts, and slippery surfaces were insurmountable obstacles.

The wisdom of a planned international highway system as a basic part of a war program has been exemplified by the Burma Road. Observers who have compared this road with finished sections of the Pan American Highway, such as those in Peru and other American republics, rate the Burma Road as really a back-country, grade-D highway. Yet E. W. James, writing in *Foreign Commerce Weekly*, tells us that in 1941 the Burma Road provided as much as 20,000 tons of vital military and hospital supplies per month for the fighting Chinese armies.

In his vivid recent work entitled *They Shall Not Sleep*, Leland Stowe describes an "orgy of racketeering" along the Burma Road, in 1941 and 1942, and says that it was still making Chinese millionaires as the Japs prepared to strike at Rangoon, where 85,000 tons of Lend-Lease supplies were stored. Nevertheless he predicts that when the Burma Road is reopened, under the strict control of Allied armed forces, it will serve as a keystone to Allied victory in the Far East.

When the Burma Road was first opened its capacity was limited to about 5,000 tons a month. Despite lack of machinery and equipment, lack of fuel, inadequate surfacing, and an unremitting rain of Japanese bombs, this artery continued to function until Burma was conquered by the enemy. Over this road moved strategic materials such as tin, antimony, tungsten, wolfram, lead, quicksilver, tung oil, mica, acids, and T.N.T. Others items reported to have been trucked over the road included heavy and bulky material such as iron, steel, railway parts, shipbuilding parts, and copper.

The favorite jibe at the Japanese by Chinese humorists on the road was that a Jap bomb cost a thousand dollars—the hole it made in the road cost eight cents to repair.

#### *Other International Highways*

Among other international highways recently developed for strategic purposes are the following: (1) several trans-African roads, including a highway from the Gulf of Guinea to the navigable waters of the

Nile—providing transport of supplies which otherwise might require thousands of miles of ocean travel between the same termini; (2) certain roads of the Middle East connecting Turkey and Iran (Persia); (3) the northern highway from China into Russia, extending from the Trans-Siberian Railway one hundred miles east of Lake Baikal southward through Outer Mongolia and then southeastward into Chahar Province, China; (4) the Caracas-Quito Highway from Caracas, Venezuela, to Quito, Ecuador, via Bogota, Colombia, which not only traverses and connects three separate political units but links important complementary regions within the several countries; and (5) the ancient and long-abandoned "Silk Route" reopened and improved by the Chinese and Russians from Chungking across the Gobi Desert to the new skyscraper city of Alma Ata in Soviet Kazakstan halfway between the Urals and Persia.

### *Conclusion*

In his *Lifelines of Victory*, Murray Harris points out that communications are the key to this war. "The power that rules communications rules the world."

Leaders of the United Nations have continually stressed the fact that the present world conflict is basically a war of transportation. Every medium of transportation is included in the battle line. The lines of communication are the very fiber of world strategy. And in the vast interplay of movement of men and machines on the global battlefronts, military highways, long and short, are playing a significant role.

Our final victory over Japan will be made possible by the long survival of war-torn China at the end of heroic supply routes such as the Burma Road and the reconstructed Silk Route.

A North American Newspaper Alliance war correspondent from the Southwest Pacific has pointed out that largely because of their failure to construct adequate military highways, the Japanese have recently been compelled to yield territory which they conquered. During the major part of the ground fighting in Guadalcanal the Japanese had great superiority in both manpower and firepower. But for lack of useful roads through the jungle they were never able to deploy and maneuver effectively, and were unable to bring their superiority to bear upon the point of attack.

# THE ITALIAN CAMPAIGN

BY MAJOR GENERAL R. H. ALLEN

Events in other theaters of operations have tended to overshadow the difficult campaign in Italy, yet it was in May 1944 in Italy that the first great blows were struck in the present phase of the war in western Europe. General Sir Harold G. Alexander now has moved on to another command, but his generalship and that of the present commander, General Mark W. Clark, must be credited with the success of operations in Italy. Forced to undertake an offensive on terrain that favored the defenders, constantly drained of trained troops who were moved to other fronts, the commanders of the Allied forces in Italy, nevertheless, have waged a gallant and victorious struggle. Moreover, the operations in Italy since the start of the present offensive action on May 11 show how General Alexander's success can be ascribed to his solution of the conflicting claims of the principles of war.

On May 11 the Allies were confronting the Germans in front of a formidable position some 100 miles south of Rome extending from sea to sea. The great natural strength of this position, known as the Gustav Line, had been increased by every artifice which the skill of the engineer could devise. Facing this position lay the bulk of Alexander's armies, the 8th on the right and the 5th on the left.

Some 60 miles to the north of the Gustav Line, Alexander had previously made a successful surprise landing at Anzio. This landing had taken the Germans completely by surprise. They had just denuded the area of three divisions moved down behind the Gustav Line for the purpose of a major counter-attack—entirely unsuccessful in the event—and consequently the Allied landing was initially more or less unhindered.

Great things were expected of this landing when its practically unopposed success was announced. The public had visions of masses of Allied armor playing havoc with the German lines of communication and even possibly of capturing Rome by a *coup de main*.

In the event the Allies moved but a few miles inland and consolidated. Kesselring collected hastily every man he could raise, stemmed all Allied advances and within a week was in a position to launch a powerful counter-attack. This was with difficulty withstood and after a few days the beachhead relapsed into what appeared to be a position of stalemate.

The failure to disrupt the German communications and to cause them to abandon their powerful defense position further south was a great disappointment to the Allied public. But Alexander was right. Security is a first consideration of a commander. He has already shown that he is quite prepared to take risks when such are justifiable, but no one has yet shown that the risk of a wild inrush was justifiable or even possible.

Those who have no knowledge of the vast amount of planning and meticulous allotment of shipping space before the event have any appreciation of what is possible immediately after a landing.

Alexander was quite correct in his appreciation of the principle of security. The land of the main body had to be made secure. To this end, in view of the fact that opposition, and especially armored counter-attack, was early to be expected, a priority of shipping space had to be allotted to heavy defensive material. It was not possible to unpack and reload this immobile mass, however desirable such a procedure might prove to be.

Although the Anzio landing was not productive of immediate results, in the long run its conduct was completely justified and it proved an admirable base for the disruption of Kesselring's armies when the decisive offensive was finally launched.

Surprise is a principle of war to which we ascribe the utmost importance. On May 11 Alexander obtained surprise in the tactical sphere. By skilful movement, without attracting the attention of the enemy, he passed the mass of his 8th Army from right to left, contracted the front held by the 5th Army, and concentrated against the German right wing with the 8th Army on his left center and the 5th Army on his extreme left.

The key of the German position was the little town of Cassino dominated by the fortress of Monastery Hill and astride Route VI, the main highway to Rome. Two large scale offensives against this sector had previously failed to obtain more than a partial success. In the second of these offensives a preliminary massed bombardment from the air had reduced the little town of Cassino to a heap of rubble. But in a fashion curiously reminiscent of the obstacle which the prolonged artillery bombardments of the last war had proved to movement, the very mass of the air attack had so overwhelmed the material of Cassino that the piles of stones and overturned houses proved to be decisive impediments to the movement of supporting armor.

On May 11 Alexander no longer attempted to attack Cassino fron-



tally, but crossing the Rapido below the town the 8th Army thrust forward for a couple of miles and then wheeling to its right cut Route VI, the only supply road to Cassino. At the same time the Polish Corps advanced on the north side and then turning left-handed successfully assaulted the hitherto impregnable Monastery Hill from the North. This combined movement was crowned with success and the Germans not only lost the town of Cassino but the great majority of their crack 1st Parachute Division.

Simultaneously the 5th Army advanced on the left and met with considerable success especially in the case of the French Corps on the right of the 5th Army. The French had much to avenge and nobly rose to the occasion. The success of their attack and the depth of their advance while the 8th Army cracked the tough nut of Cassino was a major cause of the abandonment of the Gustav Line by Kesselring.

By May 16, after suffering immense losses in men and especially in material, the Germans had swung back their right to the switch line they had previously prepared. So long as they considered the Gustav Line impregnable, they had been content to call this switch line the Adolf Hitler Line. Now that the Gustav Line had been pierced and the Adolf Hitler Line was in peril they hastily disclaimed the title they had so confidently attached to it.

Alexander did not permit Kesselring any leisure to consolidate the defense of the Adolf Hitler Line. The 5th Army on the left advanced steadily, the French especially following up so quickly that they arrived simultaneously with the retreating Germans and at once made a deep inroad into the forward localities on a considerable front. But the decisive thrust came from the 8th Army along the main highway Route VI. By strenuous efforts the Engineers cleared the road through Cassino and repaired the demolished bridges all along the valley so that by May 23 Alexander was able to launch a decisive attack and crash through the defences at Piedmonte and Aquino.

A simultaneous advance was made from the Anzio beachhead. This attack was launched from the left of the beachhead and within a few days had all but reached Route VI at Valmontone and so imperiled the main line of retreat of the German right. Inexorably Alexander closed his armies on this hard pressed wing. From the south the 5th and 8th Armies advanced steadily while the beachhead forces holding back desperate counter-attacks from the region of Valmontone brought Route VI under artillery fire.

By incredible exertions, taking every advantage of the favorable

nature for defence of the mountainous country despite great losses of material, Kesselring extracted the remnants of his forces. Split into two, one half retreated up the central Apennine massif, the other occupied a last defensive line before Rome in the spurs of the Alban Hills. Three days later this line was overrun and on the evening of June 4 the Allies entered Rome.

But Alexander did not pause with the capture of Rome. Continuously and inexorably the pursuit continued. The physical difficulties were enormous; in fact they presented by far the greatest obstacle to the Allied advance, but both by land and air the retreating Germans were continually harried till at times the retreat almost became a rout.

From time to time the German rearguards in the defiles were able to check the victorious advance, but not for long, and with hardly a break the Allied advance continued.

Let us then review this stupendous effort in view of our principles of war. Victory can only be gained by offensive action. It might well have to be argued that by detaining a solid mass of some 27 divisions in the Italian peninsula—a force that would have been invaluable to the Germans on either the Russian front or the beaches of Normandy—Alexander was making a sufficient contribution to the Allied cause. But, despite the strength of the hostile position, he turned to the offensive. This decision once taken he had, and Clark still has, but one object, the complete destruction of Kesselring's armies. Inflicting on the enemy an immense loss in material and a very considerable loss of men, he swept them from the long prepared Gustav and Adolf Hitler Lines, skilfully employing the principle of surprise with the concentration of the 8th Army at the decisive point on his left center. Once these lines were forced the road to Rome lay open.

But even with the capture of the capital of Italy the true object, the destruction of Kesselring's armies was maintained and with a mobility remarkable in such a mountainous country the pursuit was remorselessly pressed. Today we continue as we prepare for the decisive attack of the last defensive line.

# TECHNICAL AND ORGANIZATIONAL PROBLEMS IN THE SELECTION OF TROOPS<sup>1</sup>

BY LAWRENCE S. KUBIE

## PART ONE

Throughout the present war the average rejection rate at induction stations has been if anything higher than in World War I; in general the rate has tended to mount steadily as the draft has widened to include a larger share of the manpower of the nation. Yet in spite of this high rejection rate, discharges from training installations continue to occur in undiminished numbers, both for physiological and psychological disabilities. It is further disconcerting to discover that the discharge rate for such disabilities may be as high among soldiers inducted through stations with high rejection rates, as among soldiers inducted through stations which screened out relatively few registrants. The statistics which could be adduced to substantiate these statements are restricted, and cannot be presented. Nevertheless, no one who is familiar with the facts will doubt the general validity of what has been said. Nor will he doubt that to draw from industry men who are so unfit for army life that they break down in training camps and become unfit to return to industry constitutes a drain on industry, a waste of military equipment, accommodations, training personnel and facilities, and builds up huge future pension rolls.

Nor will anyone familiar with the facts attempt to single out any individual or any one agency as solely responsible for this situation. It will be the purpose of this paper rather to indicate that certain aspects of the traditional set-up of the army, plus certain attitudes of Congress, plus certain excesses and abuses which are perpetrated in the name of the doctrine of States' Rights, and many other factors as well, combine to create this state of affairs. This has forced the author to conclude (1) that technical advances and technical innovations cannot alone achieve any fundamental improvement in the processes of selection; and (2) that substantial technical advances cannot even occur until certain basic changes are made in the military machinery and in certain aspects of federal and state government. The nature of the technical

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<sup>1</sup>The anonymity which military mores require makes it impossible for the author of this paper to acknowledge his indebtedness to each of those who have assisted him in this study. During the course of the last two years, many medical officers, personnel officers, officers attached to the Selective Service System, and line officers of the regular Army (air and ground forces both), and of the Navy, have taken time from their duties to study and criticize these proposals. Indeed, his indebtedness goes beyond our own borders to friends and colleagues with the Canadian and British forces.

innovations and of the organizational changes and their interdependence will be discussed in the subsequent sections of this communication. From the technical angle, the crux of the problem lies in the fact that in civilian, as in military spheres, selection is a specialty without a specialist. This is one of the fundamental defects which the suggestions embodied in this communication aim to remedy.

### THE CHANGING PHILOSOPHY OF ARMY ORGANIZATION

Not many years ago every citizen had a gun and knew how to use it. He had to in order to survive. In those days there was no induction process. There was no training. There was no classification of men for specialized tasks. The only difference between a citizen before and after he entered the army was the fact that he had placed himself under the jurisdiction of a certain system of command. From the moment that he entered the army until the moment that he left it, his sole function was combat. Therefore, all commands stemmed from the decisions of a combat officer. The channels by which those commands were transmitted were informal and for the most part direct.

In the course of time, however, armies grew from hundreds to millions. Weapons and the means of transportation became mechanized. Armies could no longer forage their way along. Supplies became the limiting factor in military operations, supplies even more than manpower or fire power, because supplies determined the effectiveness of both. Gradually, therefore, the Service of Supplies grew to such importance that early in 1942 it became one of the three basic army commands, to wit the Army Service Forces, sharing authority and responsibility with the Army Ground Forces and the Army Air Forces.

In his *Report on the Army, July 1, 1939 to June 30, 1943*,<sup>2</sup> General Marshall points out that "this tremendous expansion required a fundamental reorientation of the conduct of the War Department and its method of doing business: it required that the various services and supply agencies be integrated into a *command organization*. . . ." It is noteworthy that this far-reaching change was made in the very midst of war, because the proposals to be put forth in this study are merely an extension of the principle enunciated by General Marshall. For although this change gave command functions to the Army Service Forces, it allowed these forces to remain a catch-all in which over the years a vast array of heterogeneous and unrelated activities had ac-

<sup>2</sup>General George C. Marshall, *Report on the Army* (Washington, 1943), p. 135.



cumulated. In this welter of heterogeneous functions all of the vital *personnel* forces continue to play a subordinate role, wholly devoid of command functions. Thus the medical services, and all of that personnel classification and specialized training which is so vital to the development of a modern army, appear in such low echelons as to be seriously hampered by lack of adequate command authority.

The modern army is an aggregate of highly specialized and at the same time exquisitely coordinated crafts: crafts which are incessantly changing and developing, yet whose craftsmen must always be letter-perfect. This is a difficult goal: yet to add to its complexity, this delicately balanced organization is ordinarily kept running with a skeleton crew which must be ready at a moment's notice to turn itself into a gigantic apprentice school so as to be able to expand with lightning rapidity, all the while choosing, classifying, training, assigning, reclassifying, and reassigning its recruits to its varied crafts as it expands. This is a far cry from the army of old, where a man became a soldier by lifting a familiar weapon from his wall and marching off to war at his neighbor's side.

Clearly in this new kind of an army, no matter how expert a small standing army may be; if it lacks the ability to expand, its expertness is of small avail. It follows that the processes of selection, evaluation, classification, training and assignment are matters of such importance as to be second to none in the structure of the army. Therefore, the tables of organization should make it possible for the army to function in an emergency as a vast expanding school: a school of varied curricula, some quite short for the less skilled crafts, and some long, as for the highly skilled technicians; varying also, although in lesser degree, to fit the previous experience of the individual recruit, his aptitudes, and the specific military task for which he is to be trained.

Furthermore, in such an army the soldier should be *mustered out* by passing him in reverse direction through the same screening process and at the same induction center as that through which he entered. Thereby everything that he has learned in his period of training and of service in the army, and everything that was learned about him, will form a single cumulative personnel record, which in the process of rehabilitation can be used to assist in relocating him in the peaceful industrial life of the country.<sup>3</sup>

The first step towards this is to bring all personnel functions together

<sup>3</sup>This system obtains today in the Canadian Army. See Kubie, "Special Aspects of Procedures and Organization for Induction and Discharge in the Canadian Army," in *War Medicine*, 1944.

into one organization with command functions, to be known as the Army Personnel Forces. This would include all medical functions, all selection, classification, assignment, basic training, reclassification, re-assignment, transfers, rewards and promotions, such special services as education, morale, and morale indoctrination, and finally rehabilitation, retirement, and discharge.

Secondly, all training beyond basic training should be brought together into one command organization, to be known as the Army Training Forces.

Thirdly, all combat troops would be brought together under the jurisdiction of the Army Combat Forces, with their two major divisions: the Army Ground Forces and the Army Air Forces.

Perhaps such drastic changes cannot be achieved in the midst of a war, even though it was possible as recently as 1942 to reorganize the Service of Supplies into the Army Service Forces. In a peace minded democracy, however, the need for such changes becomes evident only during a war. Therefore, unless attention is directed to this subject now, interest in it will lapse at once after the war is over.

The changing conceptions outlined above imply certain redistributions of Command Functions. Traditions are tenacious things, however, and nowhere more so than where that prestige is involved which carries with it the right to command. Men do not yield power willingly, except under rare circumstances. It is not strange, then, that in the modern army, in spite of the fact that the training process may last as long as two years, all command functions throughout this period still reside in the line officer. This is a relic of times long past. Instead during the course of his career in the army every soldier should be passed forwards and backwards between the three basic commands according to the stage through which he is passing.

In the first phase he would be under the Army Personnel Forces. This phase begins almost before he is in the army (i.e., during the selective procedures), and continues during his induction, and until the period of basic training and classification is completed. Throughout this period, that is until a man is assigned to definitive combat training, the line officers who are in direct command should function under the authority of the Army Personnel Forces, whose primary duty is physical and psychological appraisal, classification and basic training. During this initial phase ultimate authority should reside, not in line officers who represent combat duty, but in those who represent the functions

of selection, training, and progressive classification, i.e., the Army Personnel Forces.

During the second period of a man's life in the army, he would be under the command of the Army Training Forces. This phase begins after he has passed through the initial screening, selection, and basic training, and when he is being perfected as a fighting man through definitive combat training. Throughout this phase all commands should originate from a commanding officer of the Army Training Forces. Furthermore, whenever a soldier is being retrained for new duties he would be returned to the jurisdiction of this command. Finally, insofar as they function as advanced training centers, the Service Commands of the nine Corps Areas would pass under the Training Command.

When a soldier's training is completed, and when he is ready for combat duty, he would pass under the jurisdiction of the Army Combat Forces, either in the Army Ground Forces or in the Army Air Forces.

These suggestions do not entail any departure from the accepted principle of army organization: to wit, a single source and channel of command transmitted through a chain of command down a pyramidal structure of units whose basic organization is uniform at all echelons.

In this pyramidal structure, the proposed changes affect solely the question of which of the basic Army Forces is commander of a unit, or subunits. At present this is always a line officer. Our proposals put forward the suggestion that in one phase it should be an officer from the Army Personnel Command, in another from the Army Training Command, and in a third from the Army Combat Command.

Under such a plan the Army Service Forces would remain a general service agency, serving the other Command Forces as at present, both by serving as the channel through which orders are transmitted (i.e., the Adjutant General's Department), and by the innumerable supply services which it performs.

When *for any reason* a soldier is on his way out of the army, he again needs medical, psychological, and vocational evaluation. Here again, therefore, the chain of command should derive not from a combat command but from the same medically and psychologically governed Personnel Force which had admitted him, classified him, and supervised his basic training.<sup>4</sup> Therefore, the soldier who is about to be

<sup>4</sup>See Kubie, *op. cit.*, for the method employed in the Canadian Army.

discharged or retired should be returned to the jurisdiction of the Army Personnel Forces.

All of this implies some alteration in the tables of organization of the armed services. To the three existing basic commands (to wit, Army Ground Forces, Army Air Forces, and Army Service Forces), it would add the Army Personnel Forces and the Army Training Forces, with Commanding Generals who would be on a par with the Commanding Generals of the other three. The Army Personnel Forces would consist of several Divisions, each under its own Commanding General.

The many reasons why some such basic changes in the military set-up are a prerequisite to effective selection and classification will be explained in the succeeding sections of this article.

### ORGANIZATIONAL DEFECTS OF EXISTING SYSTEM

Hampering conflicts of authority arose under the system of selection and induction which was inaugurated during the last war, and which has been perpetuated in this war partly by Act of Congress and partly through Army regulations.

#### *Within the Army Itself*

At the top the various interrelated aspects of personnel, procurement and training come under three basic divisions of the War Department General Staff, to wit, G-1, G-3, and G-4. The Army Service Forces, through the Adjutant General, has supervision of recruiting. At the same time under the Adjutant General there is also a section on personnel classification, known technically as the Classification and Replacement Branch of the Operations and Training Division of the Adjutant General's Office. This is manned chiefly by psychologists, and although they have done excellent work, there can be little doubt that even better work could be done if a closer working relationship could be established with medical officers. Again in the Army Service Forces there is what is known as a Procurement Branch under the Personnel Division, which functions under the Assistant Chief of Staff for Personnel. This also operates without any coordinated medical assistance. Furthermore, the Office of the Surgeon General is itself merely a subdivision of the Army Service Forces, having no authority over and no direct relationship with any of these other agencies, although their functions touch those of the Surgeon General's Office at many points. Unlike the status of the Surgeon General of the Navy, the



Surgeon General of the Army does not constitute one of the Staff Divisions.<sup>5</sup>

Dropping to lower echelons, within the service areas are the induction stations which are subdivisions of personnel divisions within each of the Service Commands. Side by side with these, Selective Service has a roughly parallel hierarchy of national and state headquarters, and local offices. Thus within one geographical area there may be the remains of a peacetime recruiting organization, an induction station, and one or more selective service headquarters and offices. The consequent overlapping of functions and the conflicts of authority among these various military divisions, subdivisions, and collateral agencies create confusion and opportunities for buck-passing. Where by chance one individual happens to be head of both the recruiting station and of the induction station, this cumbersome system can be made to work with reasonable simplicity and dispatch. This has been true for a time at least in Boston; but it was purely a happy accident and not the result of organizational planning and foresight.

It is clear therefore that the unification of all personnel functions into a single command as already recommended on other grounds is essential also for the elimination of areas of overlapping and conflicting authority.

### *In the Selective Service System*

#### (1) The Forgotten Lessons of World War I.

The first World War demonstrated that the selection of troops is a problem the solution of which requires organizational changes as well as the development of new technical methods. From 1914 to 1917 the United States had clung to peace so blindly that in spite of clear warnings, the Congress of those years, like the Congress of the decade between 1930 and 1940, expressed the wishful thinking of the country by refusing adequately to prepare for the transition from peace to war. As a result of national inertia, when World War I finally drew us into its maw, a huge selective service organization had to be improvised hastily. During the brief 18 months of our participation in that war, about two hundred thousand civilians, both lay and medical, served at the task of registering 24 million and inducting 2,800,000 men. Their labors were herculean. Inevitable mistakes were made which had to

<sup>5</sup>Apparently the only reason for this anomalous and handicapping position of the Surgeon General's Office is the fact that the old Service of Supplies (now Army Service Forces) has charge of all movements of troops and supplies, which were taken to include medical supplies, hospitalization, and evacuations.

be corrected as they went along. At first there was much general interest in the problem. Gradually, however, as the tide of war gathered momentum, a point was reached at which the induction of new troops began to taper off; and the fighting front soon excluded all else from the country's thoughts. Thus even before the war was won, we had begun to forget about draft boards and their problems, about the mistakes which had been made, and about the lessons which had been learned. Immediately after the war, a few speeches paid tribute to the devoted and largely anonymous draft board civilians. For a year or so, technical articles appeared in the military medical journals, reporting on one or another aspect of the problems of selection. Then came years of almost unbroken silence on the subject.

Yet the few studies which appeared immediately after the last war all indicated that no one at that time felt satisfied with what had been done. Major Pedersen, for instance, who worked intensively with selective service from the beginning of the war to the end of it, knew its weaknesses and its strength; and out of his experience offered suggestions which anticipate some of the lessons that we have had slowly to relearn in the present war.<sup>6</sup> The fact that his words and those of many others fell on inattentive ears makes it evident that we must initiate the discussion of this problem *now*, while selection is still an active and pressing issue, fresh in the minds of everyone.

## (2) Organization and Administration.

At the outset it should be understood that this is a criticism of a system and not of its personnel. It would be a grave injustice to the many who have labored devotedly in the selective service system as it exists if what is said here were to be taken as a criticism of either their efforts or their ability. Against incalculable obstacles they have often achieved remarkable results, particularly in certain states and communities. Some states have master files; and in certain of these states, far-sighted leaders of the selective service system have used these files wisely from the first (e.g., Connecticut). In others, an extraordinarily close liaison has been created between the selective service system and the civilian medical profession and also with volunteer groups of medical social workers for the gathering of histories (e.g., in New York City). Many other individual examples could be given of instances of energetic and far-sighted leadership which has attempted with tireless ingenuity to make a defective organization do an effective job. To their

<sup>6</sup>Major V. C. Pedersen, "The American Physician in the Draft and in the Service in the World War," in *The Military Surgeon*, Vol. 46 (March 1920), p. 282.

devotion and patriotism and great ability in making the system work at all, one can only pay the highest tribute. Here, however, our task is to analyze the defects in the system under which they have had to operate and to indicate if possible how these defects could be remedied.

In 1939 the Joint Army and Navy Selective Service Committee, which had been formed in 1926, prepared an account of the historical background of the Selective Service System, and of the form which was then under contemplation for the future.<sup>7</sup> It is only in terms of this history that the organization of the Selective Service system can be understood.

The story of how this country raised its armies prior to the first World War is not a record of which either Congress, the several States, or our local communities can be proud. It is a story marred by pettiness and local jealousies. Underlying these jealousies is the sectional chauvinism and the local scramble for graft and patronage which characterizes so much of American local and state government. Also underlying these jealousies is the fact that some of our forty-eight states are historical monuments, some historical accidents, and others the residue of past political adventure and intrigue. The sacred doctrine of States' Rights stands in the way of a firm and effective handling of the problem of national mobilization. It is not to be wondered at that whenever the armed forces face the problem of mobilization they should try to avoid stirring up this ancient political hornets' nest. Therefore, until the basis of our federal structure is improved, Selective Service will labor against handicaps: but within the scope of this paper we cannot do more than point to the existence of this underlying problem.<sup>8</sup>

In 1917, it was "a courageous President, backed by wise advisors, who induced a hesitant Congress to begin the national effort on a sound basis."<sup>9</sup> In 1939, however, the joint committee of the Army and Navy which was drafting plans for Selective Service had no assurance that Congress would reenact a Selective Service law along lines similar to that of 1917. Therefore, the most that they dared do was to outline their plans in this pamphlet in such a way as to rouse as little local

<sup>7</sup>Joint Army and Navy Selective Service Committee, *American Selective Service: A Brief Account of its Historical Background and Probable Future Form*. Washington, 1939.

<sup>8</sup>This phase of the problem cannot be solved by the military alone. Civilians will some day have to summon up the courage and the integrity to force a reorganization of the geographical divisions on which our federal system rests. A dozen economic and geographical units might prove to be a sounder and more economical basis for local and national representation and for Selective Service than are our magical forty-eight states.

<sup>9</sup>See Pedersen, *op. cit.*, p. 15.

opposition as possible. *Consequently they deliberately planned a Federal Selective Service agency which was practically devoid of power.* As in the last war, National Headquarters of Selective Service was to be merely a "center for instruction and guidance."<sup>10</sup> "The real work of classification, selection, and induction is on the neighborhood committees, the Local Board."<sup>11</sup> Not even the enforcement of the law was to be a function of the national administration. Thus all essential selective functions were delegated to states and local communities lest the military should be accused of having political ambitions. Historically it is understandable why this was done. Nevertheless, from an organizational point of view it crippled the Selective Service System from the start.

Its functions and its authority in relation to the Armed Forces have never been defined with sufficient precision, either by Congressional Act or by administrative order. Furthermore, in four years it has passed through four incarnations. It was launched under a civilian director. Then came a military director. Then in December 1942 it was placed under the War Manpower Commission and again it was dissociated from this agency in December 1943. It is manned by many civilians and by a few military officers assigned to it by the Army and Navy. Within its ambiguous set-up these officers do not have the direct channels of command or the authority which the work requires and which their ranks would give them in the armed forces.<sup>12</sup> Furthermore, between the small full-time paid staff and the large volunteer staff there are areas of confusion. National Headquarters, appointed by the President, has only a limited control over the personnel of the various State Headquarters which are appointed by the various Governors. State Headquarters in turn has only limited authority over Local Boards. Illustrations could be adduced to show that orders issuing from "higher" authorities may on occasion be shrugged aside if they do not meet with the approval of the State or Local groups to which they are addressed. Officers of the Selective System are well aware of this and of the administrative confusion consequent upon the restrictions on their authority and the uncertainty of their rights to employ or to discharge their own assistants. The fact that some of the personnel are appointed under the authority of the Presidential office, and that other components of this sprawling organization are appointed

<sup>10</sup>See Pedersen, *op. cit.*, p. 13.

<sup>11</sup>*Ibid.*, p. 24.

<sup>12</sup>The same comment holds for naval officers who have been assigned to Selective Service since naval induction has been included in the scope of its activities.



by State Governors, and still others from the armed forces, contributes its share to this muddle.

### (3) Medical Functions of Selective Service.

As outlined in the pamphlet by Major Pedersen, already referred to, the original plan was to assign to local Selective Service Boards an active role in the processes of medical screening and selection. The Local Board was to have "broad powers of investigation and wide discretion. When it finds no cause for deferred classification, it *causes the registrant to be physically examined and then assigns his final classification.*" At no place, however, does the pamphlet make clear what the relationship is to be between the medical screening that was to be carried on by the Selective Service Boards and that which was to be undertaken by the armed forces. This ambiguity is reflected in the Selective Service legislation now in force.

The overlapping of medical functions and the conflict of medical authority and medical responsibility between the Selective Service system and the Induction Station is a direct consequence of Section 622.62 of the Selective Training and Service Act of 1940 and the subsequent acts and resolutions amending and supplementing that act. (To wit: Public Law 206—77th Congress; Public Law 213—"The Service Extension Act of 1941," 77th Congress, and finally Public Law 360 of the 77th Congress, which went into effect after Pearl Harbor). It is this section of the Selective Service Act which imposes on Local Selective Service Boards the duty of classifying as 4-F those registrants who "after physical examination by the examining physician" are found to have any defect set forth in a certain list, i.e., those registrants who are deemed to be physically or mentally unfit. This clearly implies that under the law there must be an adequate medical examination at the Selective Service Board by its own (civilian?) medical examiners.

Yet the next paragraph specifies that those should be classified as 4-F by the Local Board who, *after physical examination by the armed forces* are found to be physically or mentally unfit. In other words the law as passed sets up either two alternative medical examinations, or else two examinations in sequence. Much of the confusion of the medical aspects of our Selective Service System has its roots right here.<sup>13</sup>

It would not be profitable at this point to trace the precise history of the confusions which have flowed from this. However, to all who have

<sup>13</sup>Committee on War Work of the American Bar Association, *A Manual of Law for Use by Advisory Boards for Registrants, Appointed Pursuant to the Selective Training and Service Act of 1940 as Amended*. Washington 1942.

attempted to cooperate with this system and to follow its workings, it is well known that examinations by the medical advisors of Local Selective Service Boards have varied from a conscientious effort to do a thorough medical appraisal to the most casual and indifferent inspection. Furthermore, from time to time and from state to state, the policy prescribed both by State and National Headquarters has varied equally widely. At one time this gave rise to a widespread impression that a conflict existed between the induction organization of the Army, and the medical aspects of Selective Service, or the Director of Selective Service.

In the end, however, and without regard to the ambiguity of the law, the Army took over almost *in toto* the medical appraisal of registrants. It was argued that this was a military-medical function which could be adequately performed only by medical officers who were experienced in military affairs. Nevertheless, because it was impossible for the Army adequately to staff the induction stations with enough military medical officers without depleting the medical personnel of camps and overseas establishments, the Army proceeded to hire under contract many of the civilian physicians who had previously been giving their time freely to the Local Selective Boards. In many instances the same physician simply changed the place and hours of his work. At first, however, the hours required by the Army made it impossible for the physician to work at the induction station and at the same time to continue to fulfill his civilian hospital and teaching responsibilities. Furthermore, changing the locale of the medical inspection from the draft board to the induction stations failed to achieve its purpose of improving the quality of selection. As a matter of fact the net result of the change not infrequently was that the physician worked in a more congested place, under greater pressure, at a bottleneck where the men streamed through at maximal speed, and with less autonomy of medical judgment.<sup>11</sup> Thus as it actually worked out, the Army's argument that

<sup>11</sup>It is difficult to explain certain inconsistencies which are encountered in the attitude of the regular army towards the induction process in wartime. On the one hand it insists that the medical examination of recruits is a matter of such importance that it can be conducted satisfactorily only by physicians who are familiar with the services and who may therefore be presumed to know what kind of soldier the services need. Thereupon, in spite of this quite reasonable argument, the Army employs at its Induction Stations civilian physicians who may never have seen service in any branch of the armed forces, or may assign to the Induction Stations recently inducted civilian physicians who may have been in the armed services not more than a few weeks. Clearly the argument cannot work both ways. Either there really is some special clinical insight which the experienced regular medical officer gains from his contact with troops and which makes him a better selector of soldiers (a claim which is not borne out by the statistics quoted from General Lull, *vide infra*), or else the medical evaluation of recruits is a medical task which any well-trained physician is competent to undertake, provided only that the army or someone equips him with special methods and procedures evolved to meet its own needs and for use under the conditions of work at an induction station.

medical selection should be shifted from the hands of Selective Service civilians to Army personnel at induction stations became something of a sophistry.

Among other difficulties that have resulted from the lack of a well-unified organization, the following might be mentioned: (a) Discrepancies arise from time to time between the orders issued from National Headquarters of Selective Service to govern rejections by the Local Boards and orders governing rejections by the induction board issued by the Army. (b) Men discharged from one arm of the services have been accepted in another, only to be discharged subsequently from that as well. (c) Men drawing disability pensions from the last war have been accepted into one or another branch of the services only to be discharged subsequently with another disability pension. (d) There has been inadequate control of the medical aspects of the procedures of the local boards. (e) In general it has been impossible to maintain adequate records or an adequate follow-up system, although in a few localities special arrangements to this end could be made.

It would seem, therefore, that the first step towards the elimination of conflicts which arise from overlapping agencies would be the removal of all medical screening from selective service. The sole function of local boards would then be to decide an economic and social issue, to wit, which individuals were *available* for service in the armed forces on the basis of their personal economic responsibilities, and the essential or non-essential nature of their peacetime occupations. *Medical suitability* for combat duty would be appraised not by Selective Service but by a special Division on Selection of the Army Personnel Forces. As set up at present, men are inducted into the army through a sequence of inadequate medical surveys. This series of coarse screens should be replaced by a single careful medical evaluation conducted by the army itself. No medical officers would then be attached to selective service headquarters in Washington, nor to state headquarters, nor to local selective service boards. Selective service would become instead a permanent non-military, non-medical agency on which representatives of the War Department, Navy Department, Labor, Commerce, and Interior would sit jointly, to advise the War Manpower Commission as to the relative manpower needs of non-military services and the armed forces.

Any adequate solution of the problem of medical selection for and by the armed forces must presuppose the coexistence of a permanent civilian agency whose duty it would be to determine the availability

for combat duty of individuals who are performing non-military tasks. On the statistical distribution of manpower between the armed forces, industry, transportation, agriculture, education, government and the essential social services has been determined by this agency, the work of medical selection and rejection for the armed forces must then be carried out by a group of individuals who have been specially trained for this work by the armed forces themselves. This is the heart of the plan to be proposed here.<sup>15</sup>

In the practical application of any such system, however, the question must be settled which step is to come first, the appraisal of the availability of an individual from the point of view of his economic and social activities, or the appraisal of his suitability for combat duty from the medical and psychological standpoint.

During the first draft in 1917, men were called up for physical examinations before their economic and social status was appraised by the local board. As a result many men had to be given physical examinations who subsequently were rejected for economic and social reasons. Since there are never enough physicians to do the work well, and since the more examinations they have to make the poorer will be their work, this was clearly unsound. Therefore this sequence was reversed in all subsequent drafts during the first World War. Registrants were sent an elaborate 16-page questionnaire. On the basis of their answers they were placed in one of five classes to indicate the immediacy of their availability for combat duty. Only Class V was permanently deferred. On all others, physical examination of the registrant followed socio-economic classification, and took place only as the class in question was called up.

Which should come first, the economic and social appraisal of a man's *availability*, or the medical appraisal of his physical and psychological *suitability* for armed service, is really a matter of economy of time and personnel. This in turn depends in part upon which phase of the procedure has been best organized and best staffed. However, because the economic and social appraisal of a man can be done largely on the basis of clerical work, whereas the medical and psychiatric ap-

<sup>15</sup>This non-medical civilian agency for the determination of the availability for combat duty would incorporate the functions of the War Manpower Commission and of Selective Service as now constituted. It is essential, however, to place it out of reach of Congressional meddling. During the autumn and winter of 1943 and 1944, we have been confronted with the corroding spectacle of Congress making a political football out of both the War Manpower Commission and Selective Service. With the approach of a national election, even in the midst of a desperate war, some Congressional hacks are unable to leave these essential government agencies alone. If that is to be avoided in the future a permanent non-medical civilian selective agency must be set up by constitutional provision as a basic department of the government.



praisal depends upon the application of highly specialized technical skills, and because it is important to disrupt the economic productivity of a nation as little as possible while mobilizing armed forces, it seems likely that it will always prove to be most economical and most efficient to ascertain the economic and social availability of a man before undertaking the appraisal of his medical suitability.

#### (4) Defects of the Quota System.

In 1917 the quota was based originally upon the total population. This worked such inequities, however, that on May 16, 1918, the basis was changed from total population to total Class I registrants. Further modifications of the quota system will be necessary, however, in working out the *modus operandi* of such a civilian agency as is here proposed for the determination of social and economic availability and a military agency for the determination of medical suitability.

The quota system has its origin in the sound democratic principle that the sacrifices of war should be borne by every section of the country in proportion to its population. Unfortunately, however, the unit to which this sound principle was applied proves to have been too small. It was made small deliberately so as to allow no opportunity for any form of favoritism or unfair discrimination. The result, however, has been that in many communities where the majority of the men are engaged in essential defense industries the Local Selective Service Board finds itself caught in an insoluble dilemma. Either, in order to safeguard a defense industry it would defer so large a proportion of its manpower as to be unable to fill its quota; or it would disrupt the labor force of some essential war industry by draining its manpower into the army, leaving industry with infirm, unskilled, and inexperienced personnel; or else it would have to attempt to fill its legally imposed quota by sending to the Induction Station men with physical or mental infirmities. Cases are on record of obviously unfit individuals who have been sent up to the Induction Station as many as eleven or more times by distracted local boards who were scraping the bottoms of their particular barrels.

Thus the quota system, as it now exists, puts the Local Selective Service Board in a position analogous to that of the recruiting officer in a peacetime recruiting station. Both are under pressure to try to force unfit individuals through the medical screen. Frustrated at their inability to fill their quotas, boards often become angry at ill registrants, angry and skeptical of men who carry heavy burdens

of legitimate dependency which should excuse them from military duties, angry at men who are doing vital and valuable work in the Government, in education, in war industries, and the like. One cannot blame the personnel of the Local Selective Service Boards for the dilemma or for their reaction to it. They make it clear, however, that the quota system must be modified. Either the geographical unit on which the quota is based must be large enough to make the application of the principle more flexible; or else the quota must be based on the census of men of appropriate age who are not deferred for social and/or economic reasons. The precise solution of this problem is primarily a matter of statistics.

*(To be concluded in next issue)*

# "LUCK TO THE FIGHTERS"

BY GEORGE WELLER

## PART ONE

### *Foreword*

Official reports, personal memoirs and the despatches of war correspondents are said to be the stuff of which history is made. If this be true, an adequate account of the American fighter pilots in Java may never be written.

For five weeks a squadron of American fliers and ground crew, cut off from all sources of supply and maintenance, held the air over Java against an enemy that was their superior in every respect but fighting ability and courage. For much of this time these Americans were virtually the only force of modern pursuit planes defending the Dutch East Indies.

Official reports of the American fighters in Java are extremely meager, fragmentary and sometimes inaccurate; the originals, such as they were, had to be destroyed in the evacuation of the island.

Finally, the eye of the war correspondent, searching for valor unrecognized and wishing also to honor those who serve humbly but serve well, passed by the Seventeenth Pursuit Squadron, Provisional. These men fought too far outside the tentacles of communication to win equal respect with those whom proximity helped on the way to recognition.

Neither general nor war correspondent ever visited the hidden runways of the Seventeenth Pursuit. They flew unrecorded. They fought unknown.

One of the inequalities of war is that those who serve nearest the outlets of information are those who become most familiar to the world. The work of the Eagle Squadron, the Flying Tigers, and the gallant twelve fighters of Bataan all became known. The efforts of the Americans who flew for their flag in Java were written across her copery sunsets, but they vanished with the final fading of invasion.

While the Indies yielded little by little to their enemy's savage enterprise, the American Army's fortresses and dive bombers, the Navy's big and vulnerable PBY Catalina flying boats, and this hidden hive of hard pressed fighters all strove together to sustain the doomed and disintegrating chain of islands that was stretched across from north of Australia. All of them fought in the vicinity of Soerabaya, four hun-

dred miles from the headquarters of General Wavell, General Brett and Admiral Hart, four hundred miles from the Bandoeng radio station and the censorships military and political.

Something was told of the fortresses and dive bombers. A little was tardily revealed of the gallantry of Patwing Ten, the emigrés of Cavite. But what the creaking Forties of the American fighters at Blimbing and Ngoro did to win time for General MacArthur's eventual defense of Australia has never been disclosed.

Having served as war correspondent in Java after leaving Singapore, the writer of this account felt sharply the neglect of the American fighters, in which he was himself a balked and unhappy accomplice. Although he travelled four times the length of Java, visited nearly every field where Americans touched landing gear, recorded all he could within the bounds of military and political security, and remained in Java two days after the last fliers themselves had gone, the writer felt sharply the incompleteness with which he and others in identical predicament recorded this important instant in American and Dutch history.

Itself written in the field in March 1942 while the author was serving as correspondent in New Guinea, this account of what happened in Java should be considered an elementary nugget. A final revision, made in Washington, D. C., in September 1944, leaves this story still unfinished and awaiting the treatment of other hands. Three of the four commanders of the Seventeenth Pursuit are missing or dead. Someone must speak for them. This account is offered out of debt to those who fought and are still fighting, as well as to those who lie forever in the Graafplaats Kembang Koening at Soerabaya, in the blue recesses of the Java Sea, in Bali's soft jungle, or in some forgotten rice paddy high in Java's curved terraces.

Too little to honor fully those whom it celebrates, perhaps this word will not arrive too late. To those in Java, living and dead, who have awaited the return of America's wings this account is dedicated.



ROSTER<sup>1</sup>  
(non-official)  
of the  
SEVENTEENTH PURSUIT SQUADRON (Provisional)  
(dissolved)

*Squadron Commanders*

Major Charles A. Sprague (missing in action), of Redlands, California.  
Captain Grant Mahoney of Vallejo, California.  
Lieutenant Gerald McCallum (killed in action), of Rustow, Louisiana.  
Lieutenant Walter L. Coss, of Brighton, Pennsylvania.

*Flying Personnel*

Captain Jack D. Hale of Willoughby, Ohio

Captain William H. Lane

Lieutenants

Frank Adkins of Clarksville, Tenn.

Nathaniel H. Blanton of Earlsboro, Oklahoma

Bound

Bowen

Morris C. Caldwell of Tokio, Japan (missing in Java, probably killed)

Coleman

Robert B. Dockstader of Long Beach, California

Albert H. Dutton of Portland, Oregon

Hubert I. Egenes of Storey City, Illinois

Quannah P. Fields of Ponca City, Oklahoma (killed in Java)

Marion Fuchs of Big Springs, Texas

Winfred H. Gallienne of San Francisco (missing in Java or Bali)

Paul B. Gambonini of Petaluma, California

Edwin C. Gilmore

Jesse R. Hague of Panarova, Iowa

Thomas I. Hayes of Portland, Oregon

William Hennon of Mound, Minnesota

Wallace J. Hoskyn of Seattle (killed in Java)

George W. Hynes of San Antonio, Texas (killed in Java)

Benjamin S. Irvin of Washington, Georgia

Lester J. Johnson of South Bend, Washington

Robert S. Johnson of Mesa, Arizona

Elwin Jackson of Glendale, California

George E. Kiser of Somerset, Kentucky

Joseph Kruzel of Wilkes-Barre, Pennsylvania

Larry D. Landry of New Orleans (killed in Bali)

Harold G. Lund of San Francisco

Philip T. Metsker of Chicago (killed in Koepang, Timor)

Dwight S. Muckley of Johnstown, Pennsylvania

James Morehead of Oklahoma City

Robert G. McWhorter of Paris, Texas

Frank V. Neri of Rochester, N. Y.

Bernard J. Oliver of Prescott, Arizona

George A. Parker of Pasadena, California

Cornelius F. K. Reagan of Florence, Kentucky (missing, believed killed in Java)

Andrew J. Reynolds of Seminole, Oklahoma

James M. Rowland of Fort Worth, Texas (killed in Java)

James F. Ryan

William C. Stauter of Hammond, Indiana

Ray Thompson of Leona, Texas

<sup>1</sup>This roster is unofficial in nature, having been compiled by the author's efforts from the memory of personnel and fragmentary records. Distinctions between first and second lieutenants are not given because of uncertainty, and distinctions between privates, first class, and privates are not certain. Ranks are given as of the period in Java. Among enlisted men, where states alone are given, attribution is conjectural.

William L. Turner of Lubbock, Texas  
 Eugene A. Wahl of Indianapolis  
 Roger F. Williams of Sterling City, Texas

*Temporarily Attached to Squadron in Flying Capacity*

Major Richard A. Legg of Alma, Nebraska  
 Captain Willard Reed, U. S. Marine Corps (accidentally killed in Java)

*Non-flying Personnel and Attached Officers*

Major William P. Fisher  
 Major N. B. Sauve of Denver, Colorado  
 Captain Adams (medical corps)  
 Lt. McCartney  
 Lt. Gertz, liaison officer for the Royal Dutch Army

*Enlisted Men*

*Staff Sergeants*

Leo M. Burden of Abilene, Texas  
 Lewis A. Boise of Salt Lake City  
 Rudy Compton of Illinois  
 Robert W. Ebel of Evanston, Idaho  
 John G. Elliot  
 Edgar W. English of Silberton, Texas  
 Jack G. Evans of New Jersey  
 William W. Fairbank of Sheridan, Wyoming  
 William L. Fletcher of Port Angeles, Washington  
 James E. Freeman of San Antonio, Texas  
 David R. Griffith  
 Cecil B. Ingram of Longview, Texas  
 Anthony Jackson of Philippine Islands  
 Robert H. Jung of Seattle  
 William F. Kelly of Everett, Washington  
 Murray D. Nichols of Lubbock, Texas  
 William O'Rear of South Bend, Indiana (accidentally missing in Java)  
 Clifton H. Piper of Spokane, Washington  
 Richard E. Pitts of Houlton, Oregon  
 John M. Rex of Ogden, Utah (killed in action in Broome)  
 Leo D. Steinmetz of Los Angeles (killed in action in Broome)  
 James L. Swanson of Oakland, California  
 Harold N. Varner of San Rafael, California  
 James G. Weidman  
 Emerson H. Witner of Weatherly, Pennsylvania  
 Michale Zubritsky

*Sergeants*

Ernest R. Austin of Brown Field, Texas  
 Willard J. Beatty of Denver (died as result Broome air raid)  
 Clyde R. Bracklesburg of Grand Junction, Colorado  
 John H. Breeling of Ross, North Dakota  
 David E. Burnside of Spokane  
 Eugene D. Chapman of Cushing, Texas  
 William C. DeMicheles of Centerville, Iowa  
 Melvin O. Donoho of Covington, Oklahoma  
 Samuel L. Foster of Arkansas (killed in action in Broome)  
 Julian P. Guerrero of Des Moines  
 Ollie Hale  
 William F. Hardgrave  
 Clay M. Harper of Lyons, Kansas  
 Dale Holt of Lebanon, Missouri  
 Albert F. Johnson of Amarillo, Texas  
 Thomas S. Johnstone of Rennville, Minn.  
 Delbert L. Kelley of Cincinnati  
 Bernard E. Killian of St. Paul, Nebraska  
 John H. Leland of Seattle

F. S. Little of Stephenville, Texas  
 Antone Lysczyk of Bessemer, Michigan  
 Lewis C. McNeil of Lubbock, Texas  
 Philip B. Merriman of Tekamah, Nebraska  
 Charles L. Schaffer of Columbus, Ohio  
 Lyle O. Smith of Colfax, Illinois  
 Jack Strange of Kentucky  
 Reey Wassan of Louisiana

#### Corporals

Selby E. Cockcroft of Sherman, Texas  
 Victor W. Cunningham of Springfield, Missouri  
 Frederick J. Deyo of St. Paul, Minn.  
 Martin  
 Lawrence E. Norton of Washington  
 Kenneth H. Perry of Spokane  
 Angelo V. Pioreschi of East Cleveland, Ohio  
 Robert S. Reeves of Alvia, Iowa  
 Luther H. Rivers of Atlanta, Georgia  
 Jack Taylor (killed in action in Broome)  
 Lewis R. Wilsey of Southgate, California

#### Privates, First Class

L. F. Bedwell of Lamesa, Texas  
 James I. Collett of Hayward, California  
 Jack D. Crawford of Henderson, Texas  
 Lyman S. Goltry of Glenwood, Iowa  
 Glenn E. Harkins of Hansen, Idaho  
 Gerald G. Hough of Lorain, Ohio  
 Lehman H. Klob of Farmington, Mo.  
 George R. Lovejoy of Sierra Madre, Calif.  
 George H. Nelson of Oakland, Calif.  
 Frank I. Rautio of Daly City, Calif.  
 Vernon D. Root of Bellingham, Washington  
 James A. Schott of Benton, Missouri  
 James P. Sheppard of San Antonio, Texas

#### Privates

Bernard W. Badura of Genoa, Nebraska  
 Vernon U. Bynum of Coffeetown, Kansas  
 Edgar M. Chumbley of Sacramento, Calif.  
 R. E. Colbert  
 Jack Collins  
 Gail D. Cox of San Bernardino, Calif.  
 Benjamin L. Culpepper of Pine Bluff, Ark.  
 Ashley Ewart of Helena, Ark.  
 Clarence R. Flodin of Denver  
 Herbert M. Frady of Little Falls, Minn.  
 Henry L. Foy of Sweetwater, Texas  
 Edgar E. Fink of Alameda, Calif.  
 Charles R. Gear of Amarillo, Texas  
 Harold B. Green of Vanderbilt, Texas  
 Vergil L. Gumm of Minnesota  
 Anthony J. Hanna of Shenandoah, Pa.  
 James of Texas  
 Edgar C. Kimball of Rosco, Ohio  
 Kinsley  
 Herman E. Langjahr of Pine Hill, N. J.  
 Woodrow W. Myers of Missouri Valley, Iowa  
 Howard O. Phillips of Parsons, Kansas  
 Orville F. Rickmar of California  
 Roberson  
 Harlan R. Sanders of El Paso  
 Richard G. Sheets of Maryland (killed in action in Broome)  
 Shelton

Cecil E. Stevens of Big Springs, Texas  
 Philip Taylor of Tyler, Texas  
 Francis M. Tomnovec of Kankakee, Illinois  
 Touchstone of Texas  
 Carl F. Warner  
 Clinton W. Washburn  
 Raymond E. Wilson of Los Angeles

## CHRONOLOGY

(non-official)

- January 14, 1942 Seventeenth Pursuit Squadron (Provisional) formed by Brereton and Sprague designated commander.
- 16 Advance echelon left Brisbane.
- 17-18 Arrived Darwin.
- 22 Advance echelon left Darwin for Timor; Penfoci Field, Koepang.
- 23-24 Advance echelon arrived in Waingapoe, island of Soembawa.
- 24 First planes arrived in Soerabaya.
- 31 Enlisted men moved from Soerabaya to Blimbing.
- February 1 Pilots moved to Blimbing.
- 3 Two aerial battles. Rowland killed.
- 4 Air battle over Koepang.
- 5 Air battle over Bali. Landry killed. First reinforcements arrive in Soerabaya.
- 6 Captain Willard Reed accidentally killed.
- 7 Arrival of further pilot reinforcements.
- 8 High altitude air battle over Soerabaya. Metsker accidentally killed in Timor.
- 11 Mahoney arrives in Soerabaya with reinforcements.
- 12 Arrival of A-24 dive bombers from Darwin.
- 15 Sprague flew to Allied Headquarters at Bandoeng, preparing Palembang mission. Other planes flew to Batavia after adjustments as bombers at Madioen.
- 16 Major Fisher took command of Inspector Control at Soerabaya.
- 17 Air battle and dive bombing and strafing of Palembang.
- 18 Two air battles over Soerabaya led by Blanton. Fields killed.
- 20 Air battle over Bali; Sprague and Gallienne missing.
- 21 Air battle over Soerabaya. Hynes and Hoskyn killed.
- 22 Japanese raid on Pasirian.
- 23 Mahoney assumed squadron command. Major Fisher ordered evacuation of 20 officers and 20 men to Tjilatjap.
- 24 Air battle over Soerabaya. Mahoney departed for India with Brereton. McCallum assumed squadron command.
- 25 Air battle at extreme altitude over Soerabaya. McCallum killed. Coss took squadron command.
- 26 Six Hurricanes with Dutch pilots arrived at Blimbing.
- 27 Top cover for A-24 dive bombers against convoy of invasion.
- 28 Air battle over Soerabaya. Embarkation of personnel from Tjilatjap for Australia.
- March 1 Strafing mission against Jap landing force at Rembang. Caldwell and Reagan missing, probably killed. Evacuation of personnel by motorcar to Djocjakarta, thence bomber to Broome.
- 2 Arrival of air-evacuated personnel in Broome, Western Australia.
- 3 Air raid in Broome, Foster, Rex, Sheets, Steinmetz and Jack Taylor killed in B-24 shot down by Japanese.
- 4 Donoho saved from same crash after 33-hour swim.
- 5 Beatty died in Perth as a consequence of same crash.
- 6 Personnel evacuated by sea arrive from Tjilatjap at Fremantle, Western Australia, aboard *Abbequerque*.

(In April of 1942 the squadron was dissolved and its personnel, officers and men, scattered elsewhere in the Air Corps.)



### *I. THEY CLIMB TO FIGHT*

Twenty-seven big Mitsubishi bombers, fifteen Zeros hovering above them like gnats, arose from Kendari in the eastern Celebes, swung into their great geese-like triple V, and marched methodically over the blue waters of Madura Strait. It was a big raid on Java, and Soerabaya was going to be the target.

Soerabaya, the chief Dutch naval base in the Indies, had no radar listening apparatus to give warning before the bombers came up over the horizon. Nowhere did one see upon its hilly shores that black armed monster that saved England and could tell the approach of aircraft nearly a hundred miles away.

The Dutch system of warning was voice radio sets, manned by courageous Javanese youths and Eurasians, living in shacks on lonely beaches, who relayed in word if the Japanese flew over within hearing distance or eyeshot of them. But the Japs flew high, often over 20,000 feet. If they were seen, it was lucky. If they were not, it was too bad.

The Japanese, able to gauge how effective was the warning system by listening to the Dutch broadcast stations warning the populace and checking the simultaneous positions of the bombers afterward from the group commander's log, were already beginning to exploit the possibility of indirect approach. Kendari was so close that the Mitsubishi had plenty of time-over-the-target and could hit Soerabaya from any direction except directly south. And on successive raids, comparing the time of the raid warning on the Dutch radio with the position in the flight leader's log, the Japs could determine which approach gave Soerabaya's thousands the narrowest margin of warning, or no warning at all. On the billiard table of war they could make a shot from any angle. They could and they did.

On this raid the makeshift warning system, resembling that of a network of fire wardens protecting a national forest, happened to work effectively.

Among those Japanese fighter pilots flying above the bombers was one who was a dead man. He did not know yet that he would soon be dead. With his rubber sneakered feet on the sensitive, needle-like controls of his butterfly plane, he kept his eyes on his squadron leader, his oxygen mask tightly closed. He was flying at nearly 30,000 feet, where no American Kittyhawk could reach him. The Dutch pilots' Brewster Buffaloes, already wallowing at 16,000 feet, could do no more than look up at his advantageous spot far above them, seeing him as sparrows see hawks.

Yet he was a dead man. For at that moment the P-40E that was to accomplish his ending was searing down its runway and taking off, with an American, a plain-and-simple, uncomplicated human being in heavy drill trousers, furred boots and a leather flying jacket, looking through its windshield at the giant staircase of ricefields ahead of him.

The flying garment of the Japanese pilot was not a zippered army leather jacket like the American's. He wore a funeral shroud, suitable for a corpse. He meant it to be such. The shroud was long and black. He must have known that if his Zero was hit it would probably burn up or blow up. He did not know that he would die, but if death took over his controls he was dressed to ride as passenger.

American and Jap met at 22,000 feet over the Java Sea, met and fought. The American's guns won. The Jap, still alive, began to fall.

But this Jap did not burn. His engine was hit, not his fuel tank. This is rare, because in the Zero the tank is directly behind the engine, and when one goes, usually the other puffs into flame too.

Nippon never knew, as they say, what hit him. Perhaps it was the P-40E which dived upon him from above; perhaps it was the Dutch or British antiaircraft fire. It happened; that was all. The Jap's propeller, from being invisible before him, slowed and became an almost visible wall. Then as the plane began to fall the prop whirled faster, the earth grew larger, the prop grew invisible again, then with an awful simulacrum of safe flight the wings screamed aloud, the roof tops came closer and closer. . . .

They found him just over the garden wall of little Mary Hartmann, the South African born Dutch girl who used to drive an American navy car for Rear Admiral William R. Purnell. The pilot was still in his burial shroud.

His wish had been to die for the emperor. He got his wish. Neatly he dressed for death and neatly he got it. And the American, nonchalant and slovenly, dressed for life in a leather zipper jacket, remained alive.

It is good to keep this Japanese pilot in mind when one is thinking of his antagonists. Enemies form each other's natures. This Jap's antagonist was an American. Not any particular American—it's aimless in this war to attribute acts to individuals—just an American. He was one of perhaps the bravest and least known single group of fighter pilots in the war in the Far East. He fought at a time when we were losing the war, and losing it fast. Australia had to be saved many times, and he gained time to save it.

He, this nameless American pilot, was the American boy whose two slim hands—he must have been hardly twenty, not yet gross—were thrust into the Dutch dike at Java and held long enough for the American and British High Commands to get away, held long enough for Soerabaya to be destroyed by the Dutch themselves with fire, axe and explosive and thus denied to the Japanese navy, held long enough for Australia to get sufficient additional American aircraft to stop the Jap on the Java-Solomons line after the battle of the Coral Sea.

The boys at the Java dike were members of the Seventeenth Pursuit Squadron. We can name it now, because now it is only a name. It is gone forever, scattered and dispersed. Everyone knows the work of the Flying Tigers in Burma and China. None were more gallant than Patwing Ten in the Philippines, Java and Australia. How the fortress bombardment groups, the 19th and the 7th, fought in the Philippines, Java and Australia. But few have ever heard of the Seventeenth Pursuit.

Why?

The work of the Seventeenth Pursuit remained almost unknown even in Java. Like angels, nobody knew where they came from. Only their works were famous.

Why?

First because they were secretly based at Blimbing, a town between Soerabaya and the fortresses' base at Malang. Only a handful of correspondents ever went from western Java, where the ABDA command was located first in Batavia and then in Bandoeng, to eastern Java. And no correspondent was allowed to visit their field.

Some of these pilots died in Java striving to stem the Japanese. One who gave his life was a fullblooded American Indian. The honor they deserve is long overdue. One realizes what they accomplished only by knowing the whole story, how the Seventeenth Pursuit came into being, how it fought until every plane it had was destroyed, and how its members, now scattered forever, are fighting still to avenge those who will fight no more.

The Seventeenth Pursuit Squadron was born not in Java or the Philippines, but in Brisbane. The man who brought it into being was Major General Lewis Hyde Brereton, the stocky peppery little fighting general who was the spark plug of the fighter forces in Java after Lieutenant General Brett moved up into position as Deputy Commander under Wavell of the entire patchwork Allied force. This was the

early Brereton of the Far East; the later Brereton of Germany's deathblow was still unknown.

The Seventeenth Pursuit might well have taken its numbered title as its talisman, if pilots were as superstitious as they are sometimes represented to be. On Amberley Field at Brisbane there were in early January 17 P-40Es ready to fight if they could get to Java. The tiny expeditionary force was to consist of 17 pilots, 17 crew chiefs, 17 armorers, 1 line chief, 1 first sergeant and 3 radio men—the barest bones of a skeleton force rushing into an emergency. It was a kind of defensive commando. And the number of the pilots in the Seventeenth Pursuit who had had experience flying under Brereton in the Philippines was 13.

The Philippine gang had flown from Bataan to Darwin on the last day of the old year. Four pilots, newly arrived from Hamilton Field in California, made up the rest of the seventeen.

The commander of the squadron selected by Brereton was Captain Charles A. Sprague, a slim young redheaded Irishman from Redlands, California, who was soon to acquire a status with regard to his men that amounted to worship. Bud Sprague became a major by being commander of a squadron, but was commissioned only after arriving in Java. His majorship, like almost everything about the Seventeenth, was just dealt off the arm.

Before Brereton made his choice, Sprague flipped a coin with Buzz Wagner (then Captain Boyd A. Wagner of Johnstown, Pa.) to see who would be the nominee for the Java post. Sprague won, but it is unlikely that Wagner, who was the first ace of the Philippines, could have gone anyway. A splintered windshield glass had filled his eyes with powder. The fine glass had to be removed frequently from the sockets of his sight.

Later, in the course of the New Guinea campaign, when Wagner led the first American strafing raids from Moresby against Lae, wiping out a force of Jap bombers and fighters that had plastered Horn Island, guardian of Torres Strait, a newspaperman said jokingly to Wagner: "Sprague didn't come back from Java. You lost the toss at the time, but I guess you won in the end."

Wagner replied without a smile: "No, I still lost. Bud was a good friend of mine."

Wagner's first American fighters in Moresby hit the Japs hard, and were hit hard themselves, too. Wagner himself was later lost in the United States in a bad weather hop.



Time, time, time was what Australia needed. "You — well, you — er — just go up there and fight," Brereton said.

The actual group commander—Sprague's squadron was one of three planned for Java—was Major Richard A. Legg of Alma, Nebraska, a tough West Point-trained fighter pilot of mixed Irish-French descent. Legg followed Sprague's gang from Brisbane to Java, did a few patrols, doubled back to Australia to get more P-40s put together, and could never get back to Java again. He busied himself trying to persuade the unionized longshoremen of Brisbane, who at first refused to work week-ends, to unload the crates containing the rest of his P-40s.

Buzz Wagner and Dick Legg were later to be the most zealous officers in pursuit to advocate the release of fighter aircraft from their duty of furnishing top and bottom cover for heavy long range bombers like the Fortress B-17 and the Liberator B-24. Since it seemed impossible to carry out Seversky's recommendation of ten years before and build a fighter that would go on missions of the most extreme range with the bombers, the two young fighter officers believed that super-fortresses, armed much more heavily than the regular bomb-carrying breed, should do the duties of fighter protection for daylight missions, operating outside the bombers like destroyers outside a convoy. Buzz Wagner was pressing this theory of bomber-borne centrifugal fire in the United States with all his energies when he met death.

Sprague led the first flight out of Brisbane. A wise old shepherd dog in the form of a leathery-faced, middle-aged American pilot who flew an aged bi-motored Beachcraft and has remained anonymous while accomplishing some of the most incredible scouting flights of the Pacific war, showed the boys the way. (This veteran, full of Philippine experience, was later to redesign the nose armament of the B-25 bomber at an obscure field in Queensland, and make it over from a medium level bomber into the most formidable low level strafing and skip-bombing instrument of attack in the Army Air Force.)

The second flight was captained by Lieutenant Walter L. Coss of New Brighton, Pennsylvania. Sprague had nine ships, Coss eight escorted by two Fairey Battles.

In those days flying to Darwin from Brisbane was no little task. This was before the wilderness of northern Queensland and the Northern Territory was dotted here and there with airfields. Australia, only half aware what Japanese troops marching down through Malaya toward Singapore meant in terms of her own safety, still felt that the

substantial barrier of the Indies lay between her and danger. The runways and hangars that were to be erected in northern Queensland by the Australians and Americans working together were still not even drawn up by the engineering boards, to say nothing of being ready for fighter planes. Australia herself possessed exactly one modern fighter plane: a Hurricane without guns which had been shipped to Australia to raise money for the empire-wide Spitfire Fund.

In foot racing it is not customary to train a sprinter by having him do a three-hour marathon. For the same reason it is customary to send fragile short distance fighter aircraft by boat or rail to its destination, if possible, never to fly it. Travel wearies the sprinter's heart in a young engine, clogging it with carbon and straining all its maneuvering parts. But in the case of getting the planes from Brisbane to Darwin Brereton, Legg and Sprague had no choice, for there is no railroad covering this vast almost deserted country. To have sent a freighter around through Torres Strait would have taken at least three weeks to reach Darwin. And the Japs were racing south fast, striving to close from the Aleutians to the Antarctic the iron door that was intended to keep the United States from establishing permanent bases in Asia.

Thus the little P-40s had 2,000 miles of cross-country flight before they ever reached their take-off point for the Dutch Indies. It was small wonder that due to landing accidents and mechanical failures only fourteen of the first seventeen P-40s arrived at Darwin. The mechanics and armorers were flown there in a big C-39.

In Darwin the ground men got their first taste of maintaining aircraft out of cotter pins and ingenuity. They went to work on the motors, preparing them for the long over water hop to Timor. As they worked the thirsty persistent flies of Darwin loafed around their eyes and mouths, clinging and buzzing. They worked with one hand at a time, and brushed flies with the other. No wonder the weary diggers called it "bloody, bloody Darwin."

Here the American enlisted man, standing on the brink of Australia ready to jump off into unknown Asia, was getting his own introduction to war. He began with three round-the-clock shifts, assembling P-40s 24 hours a day, feeling already the Japanese tide around his feet. This was how war looked to 19-year old Kenneth Perry of Spokane, then a corporal, one of the several batches of ground men who flew to Java in the various C-39s, LB-30s, and C-53s. (These planes had been brought over with the mechanics on the maiden voyage of the *President*

*Polk*, diverted in mid-Pacific by Pearl Harbor's catastrophe from its original destination in the Philippines to Brisbane.)

Perry wrote in his journal: "We had the job in Brisbane of assembling our crated P-40E pursuits. Over a hundred had been assembled by the bombardment outfits that flew to Australia from Hawaii before we got there. So we took over their job and really went to work, from seven in the morning until five and six at night. We were turning out between five and eight planes a day and having the pilots put 'slow time' on the new engines. Our job, the armorers, was to take the six death-dealing 50 caliber machine guns from the wings, where they were installed with a half-inch coating of cosmoline grease, boil them after completely stripping the gun, and put them back together, cleaned and oiled in the plane as it came from the basic assembly hangar. It was a hard, dirty, greasy job, but everybody was working hard then.

"The bombardment outfits had left. Reading the paper one day, we found where they had gone. The paper mentioned the wonderful work the American flying fortresses were doing in the battle of Macassar Straits, and we knew who they were.

"We assembled planes for about three weeks, then late in January the 'unholy ten,'<sup>2</sup> as we called ourselves, was born. There were ten of us, five armorers, five crew chiefs sitting in a tent one night having a beer and wondering where some of our men had gone that had been sent out by air transport a few days before, when we were interrupted by the appearance of a lieutenant at the door.

"He wanted to know where Sergeant Kelly (William F. Kelly of Everett, Washington) was sleeping. We told him Kelly was in town, so he asked us to tell him to have ten men ready to take off at 5:30 AM. We said okay and he left, but after he'd gone we had a bright idea.

"Let's us take that ride ourselves,' one of the fellows said. 'We won't tell anybody. We'll just hop that plane and take off.' So we agreed and it was settled.

"At 4:00 AM I was wakened, so I dressed, picked up my barracks bag and lugged it down to the plane. Then we had breakfast and as soon as dawn broke, took off. The barracks bag and field bag were all we had with us now. We had just put all our woolen uniforms and warm clothing in our other bag, supposedly to be shipped home. So we were on our way, somewhere.

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<sup>2</sup>These ten, Austin, Compton, Deyo, Fink, Holt, Killian, Langjahr, Merriman, and Jack Taylor vanished into air when they went to Java, as far as army records were concerned, but only Taylor failed to return.

"We flew over the flat, hot treeless Australian desert all the way to Darwin, stopping only long enough to refuel. That was too long. When we got off the plane the heat struck us like a blast from an exhaust: 120 degrees in the shade and no shade. The flies were everywhere; they buzzed around getting into eyes, nose, mouth, ears and making themselves obnoxious in general.

"Refueling finished, we climbed into the plane and took off. Sitting in the sun, the plane had become an oven. We stripped down to our shorts and tried to cool off, but the sweat rolled off our faces and bodies until puddles were all over the floor. We tried to dry off with towels, but they became soaked. Finally we climbed to 12,000 feet, where it was a little cooler. A couple of the boys got airsick and went hand over hand to the tail of the ship on the cables that stretched down each side of the plane. The cables were for the static lines of parachute troops, but they served a good purpose."

The monsoon season lay heavy upon Darwin, and everything was wet and sticky. The Japs had just pushed the Australian Hudson bombers out of Babo, a small field on Bentuni Bay in Northwestern Guinea, not to be recaptured by MacArthur until a year and a half later. The Japs were coming around the corner to get at Darwin. They had also taken the far better Dutch base at Fakfak.

Moreover, the Japs were about ready to move into the island of Ambon, where the Dutch defensive forces consisting of two slow American Brewsters had been disposed of in the first Jap raid. The Australian-manned Lockheed Hudsons and Patwing Ten's battered PBY Catalinas from Manila were preparing to leave Ambon because there were no fighters to protect them. When they left, the last chance to scout the seas up to the Philippines for the southbound invasion convoys would be gone.

*Send us American fighters* was the signal being tapped out in different codes from a dozen places, from Tulagi and Rabaul to Rangoon and Colombo. Every hand reached out toward the United States; a chorus of competitive voices cried, "Me! me!"

Moresby, undergoing daily punishment by low flying Zeros and high level bombers, wanted American fighters. So did Singapore, 2,800 miles away across the great half arc of the southwestern Pacific. The only forces opposing the Japanese at this time were half a dozen badly shaken P-40s still remaining on Bataan, the handful of Australian Wirraways—a trainer plane hopefully called a fighter—still striving to endure Japanese attacks upon Moresby, the slow Dutch



Brewsters and curious CW-21s that were rejected by our army because it took a genius to land them—both to be massacred in the first heavy raid on Soerabaya—and the Hurricanes debarked in late January on Singapore (of which 12 including one piloted by "Tex" Marchbanks, the Eagle Squadron pilot of Waxahatchie, Texas, were to be shot down for the loss of three Zeros in their first day of combat.)

Wherever Brett, Brereton, Legg and Sprague looked, across the enormous panorama, there were airfields galore, but no planes. Had all the 140 American pilots in the pool at Brisbane been able to take off instantly from Darwin in fighters for Java, it would hardly have been enough. And there were only 14 who could go, though scores of others were offering their lives in Bataan's foxholes as ordinary infantrymen.

Scrappy little Brereton, who through his spectacles can give a look which practically pins you to the wall, peeled the gilt from the golden apple of the Indies before he tossed it into the lap of the Seventeenth Pursuit. While the flies on Darwin's airfield practically struggled to make him airborne, he gave the boys a talk. It was a straight talk, delivered in the usual challenging let's-see-anybody-say-different Brereton manner. Nobody was there to put down his sulfurous views, but the boys felt they would never forget what he said. When you ask them what it was now, they cannot give you the exact words. But as they remember it, it went like this:

*He said that we would be heavily outnumbered from the beginning.*

*He said that we could expect some support from the Hurricanes if any got out of Singapore, but probably not very much because things were looking up there. He said he would be coming to Java himself as soon as he got things straightened out a little more. . . .*

And what did they think about it?

*After he stopped talking we understood two things. We understood that he was a pilot's air general. And we understood that if Java fell we probably would not be coming back.*

One pilot, Lieutenant Chester E. Trout of Portland, Oregon, caught dengue fever and had to remain in the Darwin hospital.

The job of taking the 14 planes to Java by air could be planned in only one way. There was no choice of airfields or of routes as there had been across Australia; there was just one way to reach Java. There was a single causeway of islands, good as long as the Japs left it alone.

Dilli in Portuguese Timor was only 440 miles from Darwin as against 510 for Penfoei airdrome at Koepang at the extreme western end of Dutch Timor. But the Portuguese, who were allowing both sides to use Dilli airdrome for commercial traffic, would not compromise their neutrality by allowing either to use the field for military transport. After all, the Japs were already in Ambon, just an easy jump away.

The Australians occupied Dilli to keep the Japs from taking it—at a time when Portugal herself had a tardy transportful of troops coming around Africa in the old *Joao Belo*—but this short allied interregnum there was strategically unfruitful. The Dutch commander of the Indonesian regulars was evacuated by a Patwing 10 Catalina from Timor's southern coast, and the remnants of the Australian force were evacuated by Australian naval craft and an American submarine commanded by Lieutenant Commander Hiram Cassidy, USN, who received the Navy Cross for his exploit.

There was no choice; the Americans had to reach Dutch Koepang from Darwin, avoiding Salazar's part of the island. Beyond Timor the choice was equally restricted; the only airdromes on the way to Java were at Waingapoe on the northern side of the island of Soemba, and at Den Pasar field on southern Bali, facing the Indian Ocean. The next landing had to be Java.

In the October conferences in Java before war broke out Air Chief Marshal Sir Robert Brooke-Popham of Singapore had arranged for Dutch fighters to take part in the defense of Singapore and British fighters to take part in Java. No one could then foresee that American fighters would be the principal defending force for Java after Singapore fell. Nor had the Australians and Dutch come to any agreement for the movement of reinforcing aircraft from Australia to Java. For this reason no preparations, aside from small deposits of gas and oil at Waingapoe and Den Pasar, had been made for reaching Java from Australia.

The whole idea was that the British would have plenty of fighters which, if the Philippines fell, would drop back from northern Malaya, and if Singapore fell, would pull back to Sumatra and Java. A good plan, but Singapore and Manila both lost all their fighters. A handful of Hurricanes from Singapore which operated briefly between the Bangka Straits and Johore were lost in a Japanese surprise attack on Sumatra's Palembang before Percival surrendered at Singapore.

In fact, to bring the British staff officers out of Singapore before the

retreat reached the island, it was necessary for Captain Clarence E. MacPherson of the 19th group of fortresses to fly empty from Java to an airdrome in the outskirts of Johore, just north of the Causeway that even then was wired for destruction, and take off six B-17s full of officers wanted for Wavell's staff in Bandoeng. (Twice saved by the Forts, this British complement of the ABDA command was flown to Ceylon and safety when Wavell again gave the order for evacuation.)

The day came—it was January 22nd—when the pilots strapped on their goggles, walked across the red clay RAAF field at Darwin, and climbed in. Soon they were off over the big abandoned meat factory. They saw Melville Island on their right, and soon they were gone. "Give us fighters!" the Dutch had been calling. Well, the fighters were on their way.

Will Connolly, an able old pilot of a Beechcraft from Luzon, like some new Daniel Boone of the Indonesian archipelago, led the fighters safely to Koepang. They were the Philippine bunch that an even older veteran, nameless for security reasons, had flown out himself in a similar rickety old plane, announcing his intended arrival from Australia with a telegram to Bataan, "One Beechcraft, one nitwit en route."

But for Connolly and his colleague, these trained fliers would have been fighting with the other young pilots on the right flank of Bataan. The two old transport veterans brought out the youngsters because they wanted them to fight on Java with six machine guns on wings instead of on Bataan with a Garand that most of them didn't know how to handle.

Another pilot, Lieutenant Benjamin Irvin, caught dengue fever at the Penfoei airdrome and was forced to remain in Timor when the final flight took off next day for Waingapoe. The next day a whip of Japanese fighters, probably based in Kendari, swept in over Koepang and destroyed Irvin's Kittyhawk before his eyes. Not literally before his eyes, because Irvin, later to win almost every flying honor America could give, was hospitalized in Dutch hands. But his sergeant, Angelo V. Pioreschi (of East Cleveland, Ohio) was working in the hangar when six Zeros came in and strafed methodically for 25 minutes. "I ran around that hangar like a chicken, trying to dodge those bullets," said Pioreschi, who comes from a Pennsylvania coal-mining town.

Pioreschi, a stocky blackhaired solid-handed crew chief who could have fixed the hydraulic leak in the P-40 if the Japs had given him another day, could not with his tool kit fix the perforated colander on

wings they left him. He went on to Java and later became (for a more successful exploit) one of the squadron's three decorated enlisted men. . . . Irvin flew back to Darwin and pleaded himself another P-40.

There was nothing secret to the Japs about the island stepping stones from Darwin to Soerabaya. As soon as their fifth column, especially active on Timor, was keyed in on this slender pipeline of power, they were able to chop it at will.

The Dutch deposits of gasoline were unsuitable for American use, and it was therefore necessary for our Navy, cooperating with the Army, to send fuel by destroyer to Koepang. The old four-stacker *Peary* made her last trip to Koepang. She anchored off the beach by the Penfoei airdrome, her creaking old decks strapped with big gasoline drums.

In the makeshift job of getting the drums for the P-40s ashore the *Peary's* only two boats were smashed. Lieutenant Commander John M. Bermingham of New York, pressed by Japanese bombers (as he had been when the *Peary* lost her first set of officers in the bombing of Cavite), was obliged to up anchor, leaving one of his boat crews in Koepang. Later the Army flew them back to Darwin, where the *Peary* was to go down with her commander under the terrible cascade of bombs that fell without warning on February 19th, Darwin's and Australia's blackest day, when the deaths were nearly a thousand.

Curiously enough, many of the ground crewmen had never in their lives flown before they took wings for Java. As Perry says:

"We left Australia and flew over the Timor Sea on our way to 'the front.' We flew until almost 6:00 PM and finally were over Timor itself. We landed at Koepang, taxied up to the concealed hangar, got out and there wasn't a soul in sight.

"A few minutes later the Australians manning the drome began drifting out of the jungle. They were amazed to see us. We had come in from the wrong way, and thinking it was two Jap bombers, they took to their slit trenches in the jungle. The Japs had been raiding at nine in the morning and five in the afternoon for the last two weeks. They had just left, they said. We went up and had our supper, along with a cold bottle of Dutch beer."

Perhaps the Americans and Australians both sensed that they were on territory highly prized by the enemy. A month later almost to the day the Japanese parachutists were to float down and capture Koepang, breaking the golden thread to the Indies. "We stayed that night in a grass hut and took turns through the night standing guard. Guard



that night was a memorable experience, with the brilliant moon overhead, silhouetting the swaying palm trees and ferns. The lizards croaking in nearby bushes and the night birds uttering their hoarse shrieks through the night made it unforgettable.

"At last dawn came and we took off as soon as the runway was visible. All this time we had been looking for our '40s to arrive. They were to have accompanied us on the trip, but had not shown up. We were getting worried about them, and also for our own safety, since Japanese planes were present in the area and we had no guns at all on the transports. We had not seen the other transport for a long time and we were all alone in the sky.

"Suddenly a plane, coming fast, dived out of the clouds above us, went below and came directly toward us up under our belly. Instantly: Jap!

"From each side of its twin engines we expected to see flashes from his guns. Twin flashes came blinking at us and then going out. It was the other transport! The sigh of relief was audible. 'Don't ever do that again,' said one of the men, talking to the other plane."

Koepang to Waingapoe, for the gnatlike P-40Es, was only about 240 miles over the Savu Sea. The next hop would have been only 300 miles if the P-40s could have landed at Den Pasar in Bali. But at this time on Bali there was nothing but a field for them, no fighter fuel. They had to push on straight through from Soemba to Soerabaya, a jump of over 450 miles. It is to be remembered that some of these pilots had had less than ten hours' experience slow-timing P-40s in Brisbane.

The fighters got only a glimpse of Bali, that still unspoiled paradise of the non-industrialist creative craftsman. They did not know, then, that it was over Bali and little Penide, the island in Lombok Strait, that Major Sprague was to fight his last battle as their commander.

Thirteen planes arrived in Soerabaya on January 24th.

Two days later the big American transport planes came winging in from Darwin. The boys in tan duck caps who knew about machine guns and carburetors piled out and jumped to the ground with "How did the engines stand up?" on their lips.

It is a cramping, deafening and fatiguing experience to fly fighter planes over long stretches of water. Fighter pilots are not by nature navigators. Sprague brought his whole force through intact, but they were tired. The marathon was over. They prepared their maneuvering muscles and sea-weary eyes for the sprints.

Later a plan was developed by which a Fortress with an experienced army navigator should lead the P-40s on the tip-toe trail from Darwin to Soerabaya, ducking as well as possible between Japanese fighter sweeps. That was when the mechanics in their grimy caps and slept-in dungarees had the laugh on their twenty and twenty-two year old officers. The groundlings sat behind the machine gunners at the side hatches of the fortresses, in clear view of the fighter pilots wrestling with their controls. At the machine gun windows the greasy groundlings lolled back and read newspapers as conspicuously as possible with the air of business magnates at the windows of a club, occasionally waving magnificently to the lieutenants battling with throttle and stick against the up-and-down of the air currents over jungle and sea.

The Seventeenth Provisional got its ground crews to Java, thanks to the daring of an infant air transport squadron, largely composed of former Philippine pilots and members of the insular airline once operated by Captain Paul Gunn. This ragamuffin outfit was eventually headed by a tall impassive dark officer who had been aide in the Philippines to General Brereton. His name was Captain Edgar Hampton, he was 28 and had studied at Rutgers before beginning three happy years under the peppery Brereton. On the Java end the Australian world flier Harold Gatty headed up this guess-and-God American truckline of the skies.

Hampton's transport foundlings—five C-53s, two old B-18s, two LB-30s (the British version of the B-24, but lacking turbo-superchargers), a single C-39 and three ailing Beechcrafts—were the parents of that mighty "iron mat" across the Owen Stanley range that was one day to carry a harassing force of Australians into Wau in New Guinea, and the 32nd and 41st Divisions and many Australians over to Buna for the recovery of Papua. They were the progenitors of Kenney's "biscuit bombers."

But such great movements, so huge, so safe, were undreamed of then. Hampton, in fact, with Lieutenant Fred Henry of Butler, Missouri, and Lieutenant Howard K. Petschel of St. Paul (later killed in the Japanese raid on Broome March 3rd) was to remain in Java doing communication work between the fortress and fighter fields at Batavia, Bandoeng, Madioen, Djocjakarta, Malang, Blimbing, Gnorro and Soerabaya only until January 25.

After the Japs began raiding the island chain between Australia and Java Brereton ordered that no more unarmed transports were to fly the route, and thereafter only B-24s and LB-30s supplemented the

American fortress communications between what was then Wavell's theater and what was later to be MacArthur's. (The C-39, incidentally, had been saved from the Philippines disaster by the brilliant six-foot, Bible-reading, dive bomber pilot from Sheridan, Kansas, Captain Floyd W. "Buck" Rogers. Rogers himself died with most of his squadron of A-24 dive bombers, the first and last army plunge specialists in New Guinea, when they took off from Kila airdrome at Moresby to halt the Japanese amphibious force debarking at Buna late in July, 1942, missed their rendezvous with their fighter cover, and were almost completely wiped out by Japanese fighters.)

The British troops fell back upon Singapore Island, and the Japs took Ambon, the northern keyhole to the Banda Sea. Would Singapore hold? The Japs had moved down both sides of the Strait of Macassar and were making preliminary photographs of the Soerabaya navy yard—the last usable allied naval base above the southern coast of Australia—for the program of raids to come. Small wonder that the Jap bombers, when their fighters had nudged into the nearer fields at Bandjermasin, Macassar and Bali, were able to place a bomb directly in the middle of the thatched roof camouflage that the Dutch had so painstakingly built over the drydock at Soerabaya necessary to our refugee Asiatic Fleet, homeless since Cavite's fall.

For five days the pilots based upon the airdrome at Soerabaya practiced learning to distinguish the Dutch and American aircraft already on hand, which in the Dutch case consisted of Dorniers, Ryans and barrel-bodied Brewsters, together with a handful of old Curtiss CW-21s, plus a small force of PBY Catalinas, the new ones of which had been flown across the Pacific for Dutch use, and the older ones brought down from the Philippines by Patrol Wing Ten under Captain F. D. Wagner and Commander John Peterson. The Americans also began practicing with the interceptor control operated by the Dutch air officer at Soerabaya, to whom they were subordinated.

"Those Dutchmen certainly were gutty," said one American armorer who saw them fight. There was something challenging about receiving "the duty" from men who died as the Dutch did in the first raids.

The CW-21, Indonesia's best fighter, was a radial engine job like the Zero, with four .303 Browning machine guns. The resemblance ended there. The Zero had about 150 miles an hour margin over the old Curtiss trainer, and could practically turn cartwheels inside it.

The first time the Japs hit Soerabaya thirteen of these anachronisms went up; seven came back. At night the Dutchmen sang and laughed

and drank beer in the same way, and the American enlisted men who saw them felt a kind of wonder that men could die like that.

In those five days in Soerabaya, the Allies got to know each other. Dutch pilots and American enlisted men lived only a few doors apart, on Singapore Way. Before dying, the Dutch knew who was taking over.

When the seven went up, to meet the next overwhelming raid, two came back. The hardboiled Dutchmen, with the strong suicidal streak that came of desperation, merrily told the Americans: "If the Japs come tomorrow, we'll both go home, too. It's time we knocked off work, like those other boys."

Ask the Americans of Java what they think of the Dutch today, and they say: "They might be a little quick reaching for the old guider, but they sure knew how to fight as a people, and you couldn't move them with anything but explosives. They certainly tried to show their appreciation for us."

The commander of the phantom group of which the 17th Squadron was the first to be formed—the 20th provisional and 33rd provisional being paper hopes—was Major Legg, a stocky 2,000-hour pilot of the 1934 West Point class. Legg had flown from 1936 to 1938 in the Philippines. He was sent out to the Far East with sealed letters for General Brett, leading a flight of three fortresses by the Florida-Brazil-Egypt-India route. As group commander in Java, the rotund and laughing Legg led four missions, mostly over Borneo, before relinquishing fighter leadership to his squadron commander Major Sprague and going back to Brisbane to assemble more P-40s and teach pilots to fly them. "Sprague was their leader, not I," Legg says today.

On January 27th Bud Sprague took out a flight of ships to protect a Dutch submarine, crippled in the shallow water attacks off Borneo at which the small Dutch submersibles were specialists. After the weather worsened under the prevailing northwest monsoon, and the submarine was no longer in danger of air attack, all the P-40s were pulled back to Soerabaya.

This was the first success for Dutch-American liaison; Major Frank Kurtz, one-time Olympic high diver and now bomber pilot, had received the request from Kommander van der Straaten of the Dutch Navy.<sup>3</sup> The Dutch perceived their allies meant business.

Lieutenant Frank Neri of Rochester, New York, landing in bad

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<sup>3</sup>See William L. White, *Queens Die Proudly* (New York: Harcourt Brace, 1943), p. 180.



weather after a mission to Bali, spun in and crashed. His face and head were terribly cut and his ear was sliced off as cleanly as by a razor. He went to Bandoeng and received more treatment from Dr. James E. Crane, able Stanford educated physician who had also helped the Javanese when Japanese fighters strafed the streets of Soerabaya. After Neri had gone a couple of his friends went out to the scene of the crash and saw something white in the grass. It was the ear. They put it in a small blue box and carried it around for awhile, intending to return it formally to its owner. But the ear became impossible to live with and finally, like a lot of things in the 17th, got lost.

The Dutch, realizing because the Japs were already based at Samarinda in Borneo and Kendari in the Celebes that heavy bombings were imminent, were hastening arrangements to get the Americans moved back to Blimbing, near Djombang, behind Soerabaya.

Blimbing, not to be confused with another Blimbing near Malang, the American fortress base, was a little *kampung* or village on an inconspicuous road that ran six miles south from Djombang, a station on the Soerabaya-Madioen-Soerakarta railroad through central Java. From a fighters' point of view up aloft Blimbing looked like a button set deep in an upholstered divan. It was ranked about on every side by climbing terraces of *sawis*, the terraced rice fields by which Java's 40,000,000, a population more dense than almost any in Europe, were able to feed themselves.

The building of the field was a typical job of Dutch ingenuity. They had taken a ricefield, or rather several, drained them, and planted them to grass. It still looked more like a ricefield than anything else from the air. It was six miles by the squadron's two peeps to Blimbing the village, where the fliers lived in the deserted homes of the executives of a small sugar mill. Then it was another six miles out to the main road to Soerabaya, and about twelve miles to Djombang, where one could take almost any time a crowded local train to Soerabaya, full of women in sarongs and babies in tiny sarongs, sweets, live chickens and lively Javanese chatter.

For twenty-seven days the Japanese scouts could not find Blimbing. Our pilots often had difficulty finding it themselves.

The ex-ricefield that was the bulwark against Japanese invasion of eastern Java was shaped like a Christian cross lying flat on the ground, with the long arm pointing east and the three short arms running north, west and south. Using the system of quick getaway after raid warnings, the 17th arranged its planes in such a way that at least six-

teen—providing that number were in a state of repair—could get off the cramped runways in three minutes, spiral up and gain enough height for a diving attack at the oncoming Zeros and Mitsubishis. Considering the fact that the best pilots had to take off on the shortarmed north-south runway, over the choppy dangerous air drafts that were exhaled up from the flooded ricefields, the speed of takeoff could hardly have been beaten by a crack outfit operating from one of those horizon-long fields on which fighters were then being trained back in the States.

On this 27th of January Brereton arrived from Darwin, and went up to Bandoeng to become American air chief in the new Wavell command. Legg reached Batavia, started to call by phone "Uncle Billy" Foote, the genial American consul-general—decided that "Mr. Foote, this is Major Legg" would be a poor introduction and walked around instead. He told the diplomatic officer that America's fighters were on hand. The 17th provisional had arrived in Java, politically and militarily. They had pulled on their helmets, looked out on each side of their cockpits, and spun their props. They were ready to take off—and fight.

The American fortresses at Malang were under Colonel Eugene Eubank, with whom Sprague was supposed to cooperate. The idea was that the American fighters could protect either Soerabaya from a head-on attack over Madura Strait, or Malang from an attack coming from the direction of Bali. Meantime the bombers, the 7th as well as the more famous 19th, were to strike the Japanese ships wherever they were, to destroy their airfields wherever they placed them, from Jolo to Kendari, from Balikpapan to Kuala Lumpur in faraway Malaya, from Singapore to Palembang. These were the days when the B-17 was considered only a high level bomber. when moonlight skip-bombing was unheard of, and anything below 5,000 feet by daylight was considered wild and wasteful for the bombsight-obsessed monsters.

The Seventeenth moved to its new field after Lieutenant Gertz, their hard-working Dutch liaison officer, and Captain Willard Reed of the Marine Corps had perfected arrangements and finished preparations on the field.

Because the field at Blimbing was well hidden, the accommodations were plain. You couldn't have everything. One customarily cheerful pilot (Lt. Lester Johnsen) wrote of the board: "The food was terrible and it was prepared by native cooks and had no similarity to anything appetizing. So consequently all we would eat was peanuts,

bananas and beer. We would only plan from hour to hour, not knowing if we would be alive the next hour. Everybody was in good spirits despite our predicament."

The day of the groundcrew was long and hard. The early shift had a breakfast of bread with powdered chocolate, took the peeps out to the field and had their tools in their hands by 2:45 AM. The regular shift could loaf around in bedded ease, provided only they were on the field by 4:00 AM.

There was no engineering department and no supply department. They simply borrowed things back and forth between the fighters. "Could I trouble you, McBride, for a cupful of presto?" "If you can give us the use of 200 rounds of clean .50s for the day, Goltry." They swapped back and forth, like housewives, from revetment to revetment. Buffalo's assembly line was a long way off.

At 9 the grease gang had another light breakfast consisting of cottile roots plucked fresh from the nearby field and prepared by the Dutchman, his wife and two daughters who were their caterers. The cottile is a white rooted plant that looks in leafage like a fig and has a straight root. Stripped and boiled, they were plain but good.

Sometimes at this late breakfast they had fresh cocoanut. There were 150 coolies working at the strip, rolling gasoline drums and building shelter revetments out of bamboo, matting and tar. It was enough to point to a tree and one of the little Javanese would hitch back his sarong, plant his knife more firmly in his belt, and go up the best inclined cocoanut palm.

Blimbing had no anti-aircraft; the Dutch idea was apparently that when this field was discovered by the Zeros, there were plenty of others in Java to take its place. The Americans started some protection against strafing. They dug four or five round holes about five feet deep, and took .50 caliber guns from damaged or foundling P-40s to arm them.

In the plane the machine guns had been electrically fired. But there was no electrical system on the ground. So the mechanics rigged up the selenoid magnets from the plane as triggers. In a raid, the armorers were supposed to be gunners. How all this would have worked out in an actual raid nobody knew. After a couple of weeks the Dutch sent out some native gunners, who lived in the shacks between the eastern and southern arms of the runway and manned the makeshift guns by day.

Sprague tried to keep everyone alive to the fact that they might be

attacked any time, by land as well as by air. As early as February 2, four full weeks before the day of invasion, he told his men, "The Japs are due any moment."

The Japanese hunted patiently for the field. They found and struck not only Batavia and Soerabaya, but Malang, Madioen and Djocjakarta, the three fortress bases, and the headquarters of Wavell at Bandoeng. But until the very day their landing barges grounded on the sands of Java, they could not find Blimbing.

One morning they almost found it. Four Zeros came over the little field and hung over the rice paddies like the ever-circling hawks of Java. As Perry observed, "We kept out of sight and held our breath until they turned toward Soerabaya and left. If they had been able to spot the field, the 17th Pursuit Squadron would have had its career ended. They would have bombed it out completely. As it was we were able to operate a little while longer and the Jap radio still reported 'swarms of fighters rising from hidden fields all around Soerabaya, armed with six cannon.' . . . In reality it was our twenty or thirty odd P-40Es armed with six .50 caliber guns, rising from *one* hidden field. But the Japs couldn't do anything about it and Tojo kept losing planes."

In the broiling Javanese noon—sometimes broken by petulant thunderstorms—the squadron's truck would circle the field with lunch, usually fried rice with some fruit like mango or pineapple. The truck stopped at the east end revetments, the north end revetments, and "Operations," a twenty foot square grass hut pushed in the corner between the southern and eastern arms of the runway. The grass huts for armament and engineering, respectively, were a little farther down the eastern arm, within shouting distance of "operations."

Before the thunderstorm that often follows sunset in Java, the tired men crammed aboard the two peeps and the truck to go back to Blimbing. Supper, the best meal of the day, was waiting for them: a big tureen of soup, water buffalo meat with cabbage and rice, and finally *manggas*, the Malay term for mangoes which they first learned to call by its native name.

Busy though the men were getting the P-40s ready to fight, there was still enough zest in them so they wanted the planes to look terrifying as well as being destructive in action. So they painted on them the leering shark mouths that go so well with the underslung jaw of the P-40. Some crews thought that a dragon was the thing, and soon there were a few dragons. Usually the officers did this fancy brush-



work themselves, spurred by suggestions from the mechanics lying on the ground under the awkwardly placed underwing feed systems of the P-40. It was these little extra touches of *panache* that spiced the dull rice of unequal warfare.

When officers and enlisted men have actually faced death together, one often finds in retrospect that they were so close together that the barrier of rank ceased to exist. However softened such experiences may be by time and qualified by military inexpressiveness, it is apparent that there are many situations when the barrier actually vanishes. Blimbing was this kind of situation.

The best testimony that comradeship far beyond rank existed at Blimbing is in the fact that enlisted men who served there are its chief witnesses. "We knew we were all in it together. The officers behaved this way to us, and we behaved the same toward them."

Discipline was strict, but it came from below rather than above. It was self-discipline. Sprague was no prude. When the crews asked him about leave in Soerabaya, he said: "After you get the planes ready to fight and can give them no more work, your time is your own. You can go anywhere and do anything. There will be no leave passes; you issue your own. But you have to be out there in the revetment long enough before dawn so that when your pilot comes out, his ship is ready to fly and fight."

To the officers, speaking apart, he said: "There will be no saluting and stuff around here for awhile. We can't waste time in non-essentials. Our job is to hold the Japs out of Java as long as we can."

Then, just to make sure the grease gang understood that the obligations were mutual, he called them in again. This time he said: "We're operating here under bad conditions. We have one armorer, one crew chief and one pilot for each plane. If anything big goes wrong, we can't fix it. It's up to you to see that your ship is ready to fight. Besides the guns in his plane, every pilot has a .45 in his shoulder holster. If something mechanical goes wrong with his ship or his guns in the air, and the pilot gets back to the field, he has the privilege of landing, pulling his .45, and shooting you on the spot."

No groundlings were shot. The only time a .45 was drawn was when Lieutenant Gertz, the Dutch liaison officer, swapped his .32 automatic for one of the pilot's big fellows. As soon as the trade was complete—and characteristic of his countrymen, the Hollander did not lose by it—he emptied the chambers, counted the shells, and put back three of them.

"What are the three shells for?" the pilot asked him.

"For my wife and my two children, if the Japs come," said Gertz. "I do not want them to fall into Jap hands."

It was said calmly; the talent for making gestures does not exist in the Dutch. But the American .45 never spoke; Gertz saved his wife and children and lived himself to serve at the Dutch fighter training school under General Van Oyen at Jackson, Mississippi.

Captain Reed, the flying Marine, did his best to help him. "Jess" Willard Reed was one of that group of American naval and Marine Corps pilots who had been hired by the Dutch Government to give instruction in piloting Catalinas. Of the three American PBY instructors who remained in Java after war was declared only one lived. He was Lieutenant Thomas Hardy of Corning, Ohio, who joined Patwing 10. The second, Lieutenant John M. Robertson of Los Angeles, was to be killed flying a Catalina for Patwing Ten up Macassar Strait when he ran into a muster of the Japanese invasion fleet headed for Java.

"Jess" Reed, small, round faced, dark and vivacious, a Harvard-educated Marine who became one of the most beloved Americans who ever visited Java, was to be a kind of unofficial foster father to the Seventeenth Pursuit. He was not only ready to guide them, as he had the Dutch, he was ready to fight with them.

Two days after the Squadron settled down at Blimbing, Bud Sprague flew to Bandoeng where ABDA headquarters was located, to stir up notice about the lack of suitable equipment in Soerabaya for air defense. The Dutch had no radar; the Americans had no spare parts, tires or anything else.

Almost upon the hour of the red-headed commander's departure the Japanese sent their first great wave of bombers against Soerabaya.

For Java the Japanese had reserved a new approach technique, untried in Singapore. At Singapore they had always used a vee of vees. When they were attacked they sent the right echelon of bombers down and pulled the left echelon up, thus creating a ladder of fire against attackers on any level.

Against the Americans over Soerabaya they changed, at first, to a straight line approach—nine planes in each line.

The Soerabaya lookout system of coastal watchers gave the Americans between twenty and twenty-five minutes warning—when it worked. The efficacy of a warning depends on three things: how far away the enemy is at the time, how high he is, and how fast our fighters can climb.

The Japanese bombers usually came in at 21,000 feet. Being this high—and already closing in upon Soerabaya—they were at first able to get over the target and open their bomb hatches before the American could reach them. The Americans were still 4,000 feet below them when they saw the first formation. There were seventeen—two lines. Their bombs already turning the naval base to flame and smoke, the bombers cut for home.

The Americans chased the bombers—they were Mitsubishi 96s, twin motored—85 miles to sea in the direction of Bawean Island. Two planes, those of George E. "Kay" Kiser of Somerset, Kentucky, once a pharmaceutical student at the University of Alabama, and Bill Stauter of Hammond, Indiana had to turn back for lack of gasoline. Jack Dale, who came from Willoughby, Ohio, climbing and pursuing at the same time, got in one pass but his bomber got away.

When the Japs were attacked along their line in those days their tactic was to depress the level of the bombers at whichever end they were attacked, apparently to make certain that if the P-40 missed on its first pass it would not have a chance to dive down upon another plane.

But the Japs had to pay percentage for their blow at Soerabaya. Bill Hennon of Mound, Minnesota, earned the squadron its first bomber by sneaking in alone from the rear and picking one off. When it fell smoking into the sea, the squadron had tasted its first meatball. More were on the way.

The Americans had been able in this first action to attack the bombers without interference from Zeros. This advantage was possible partly because Dutch Brewster Buffaloes, souped up slightly over the same types used at Singapore, together with the unlandable CW-21s, were engaged (on very unequal terms) with the Japanese fighter force above the bombers.

It was the meeting of Dutch and Jap fighters that gave birth to the first wild reports of parachutists over Soerabaya. The fairly well armed but intolerably slow Buffaloes and Curtisses were attacked by the Zeros and shot down as fast as clay pigeons. Fortunately none of them burned and the pilots were able to bale out. They floated down, six Dutchmen in a row, and it was some time before the native population could be persuaded that they were not parachutists.

The keen-eyed Ken Perry, waiting with his buddies in Soerabaya for more "Forties" to come in, saw the Dutch make their bid to halt the deluge.

"We had been expecting a raid, but it was cloudy that day, and so except for our planes, our restlessness was for nothing. About ten o'clock the sirens again began their death song, and the seven Dutch planes again took to the air: seven against whatever the Japs were sending over.

"We were quite far from any immediate shelter, so we ducked into a machine gun pillbox. There was no gun in it. Several Zeros came over and later we could see them diving on the harbor, strafing the PBV flying boats anchored there.

"Suddenly the Dutch fighter planes attacked the Zeros and dogfights were numerous. We cheered a Dutchman who was diving on a Jap giving him hot lead from his four synchronized .30 caliber guns. Then a streak of vapor appeared at the trailing edge of the Jap's wing. But it was not he, but the gallant Dutchman who burst into flames and went down. 'He has guns shooting backwards,' somebody whispered of the Jap who got away.

"Only a couple of us had seen a second Zero dive down from above on the Dutchman.

"A Dutch plane flew over a liner in the harbor, and we heard a terrific barrage go up from her decks. We were mystified. 'Why shoot a Dutch plane?' we wondered. Zeros passed back and forth across the runway, strafing and having a big time. There was no opposition.

"We saw a Dutch plane coming in for a crash landing on the runway. Three Zeros were following him down in formation, firing all they had. The Dutchman burst into flames before he hit. We took off our hats. One of the Japs circled our pillbox not a hundred feet above us. We could have hit him with a .45 pistol, but there wasn't a gun to be had.

"The Zeros seemed to have gone, so we ran out on the runway to see what we could do. We passed a Dutchman, lying in mud and water, mumbling and trembling. 'Shot?' we asked. 'No, he's just praying,' answered one of his countrymen.

"We ran on over and Langjahr found a jeep with the key still in it. He climbed in, started it up, and said, 'Let's go.' He was slightly drunk again. 'Where are we going?' somebody said. We had an intention of going to the operations hut and see what we could do for the Dutch. 'I'm gonna put that plane out,' yelled Dobey. 'Are you coming?' Everybody knew that he was drunk, that the raid was just



beginning and so they all said no. 'You're yellow,' Langjahr said, and Deyo and I wouldn't stand for that, so we hopped in.

"We drove off in a cloud of bewildered buddies, raced across the runway and entered the hangar at full speed. I jumped out when we skidded to a stop, threw in two hand fire extinguishers, and we raced back to the burning plane, which by this time was almost hidden by flame. Dobey drove by the wing and despite the thought *gas tanks . . . explosion* we tried to put the fire out near the cockpit. It was no use. So we drove back and got into our air raid shelters as the bombers again appeared overhead.

"Again the terrific explosions and concussions, but this time we were in a better shelter. Finally it was over and we looked out. The Naval Station, across the runway, was a mass of black smoke and ruins. From 22,000 feet the Japs had done well. We sat on top of the shelter and waited for something else to happen. It didn't. 'Come on out,' we called to more cautious buddies still inside. Super-cautious, plenty scared, Griffith (Staff Sergeant David R. Griffith) poked his head out. 'Is it okay?' he asked. Before we could answer there was a monstrous rumbling and a curtain of flame and smoke shot into the air 200 feet high. The magazines in the Naval Station, ignited by flame, had gone off. Griffith, his faith in his buddies lost, stayed in the shelter a long time."

Bill Hennon, who earned his Silver Star in one of these raids, had been arguing with a Dutch pilot on another nearby drome when the Japs came over. "A Brewster can't turn inside a Zero," he said. The Dutchman said it could. He went up to prove his idea, and in ten minutes he was back sitting in the same slit trench with Minnesota Bill. "You were right, Bill," he said, "Brewster cannot turn inside Zero." The Dutch Lieutenant Bedet, commander of the handful of C-21 Curtiss fighters, was a popular figure around the American camp.

The Japs had a second fighter diversion working at the same time, after the Dutch went down. They sent over in two waves, long range Zero fighters with belly tanks and Seversky type fighters to strike Malang, where the Fortresses were hidden, south of Soerabaya. Two American fighters met six of this force at 8,000 feet. They were Lieutenant Walter Coss of Pittsburg and Lieutenant James Rowland, a husky six-footer.

The Japs, using their superior force to the utmost, had placed an extra fighter force somewhere above them at 8,000 feet. When Coss and Rowland attacked the six Japs, the second gang of Japs fell on

their necks from above and behind. "Big Jim" Rowland was never to return to Fort Worth. He fell out of control. General Brett later awarded him the Silver Star.

It was on this day that the 7th heavy bombardment group of fortresses, about to be merged by Colonel Eugene Eubank with his own 19th group, received their heaviest blow at their Singosari field, a few miles from Malang. Six fortresses were destroyed on the ground, five that day and the sixth puffing suddenly into flame the next.

This last fortress was father to a legendary saying not found in the books of Javanese lore. Its number was 27; the saying was, whenever an unexplained bolo knife or pair of binoculars was found in the hands of a new owner, that "I got it out of 27." The limits of the old 27's equipment became as extendable as passenger accommodations on the *Mayflower*.

The next day Bud Sprague flew in from Bandoeng, having talked to the members of the ABDA command. They had not been able to offer him much help in the way of supplies or equipment. There were no other Kittyhawks in Java; there was nothing but a handful of remaining Brewsters and some Hurricanes from Singapore that already had their hands full trying to protect the eastern coast of Sumatra, where every escaping ship was being terribly punished as it passed through Bangka Strait on the way south.

The Seventeenth Pursuit began to sense how remote it was in the great extemporaneous and under-equipped scheme of allied defense of Java. Batavia, at the other end of Java was a commercial port, of little naval importance except as a refuge for ships fleeing from Singapore. But on the defense of Soerabaya, a naval base in some respects better equipped than Singapore and certainly far more active, the allies had bet their hope of stopping the Japs north of the barrier islands.

If Soerabaya was to be kept functioning as a mother port for war-ships, particularly for the American submarines that were meant to halt the Japanese convoys, the eleven Kittyhawks and twelve pilots that comprised the Soerabaya fighter force would have to be kept in the air.

Only forty minutes after Bud Sprague landed after his long flight from Bandoeng he was up again, characteristically not sparing himself, and out to sea, leading Gilmore, Kiser and Hennon. Air direction control had asked for four ships to go out and protect the *Marblehead* on patrol in the Java sea. The weather this time was so mucky that

it was better protection for the *Marblehead* than any fighter, and after they were 150 miles at sea they were pulled back.

The absence of radar equipment to defend Soerabaya, which would have given the Seventeenth time and warning to climb high and meet the invaders at sea, was keenly felt in the grass huts by the field at Blimbing. But there were also difficulties in coordinating the telephone-radio system of warning control, necessitated by the fact that long range Jap fighters were approaching Java from the south and east as well as from the north.

At half past nine in the morning, a good Japanese raiding hour, nine of the squadron's airworthy ships were sent up with Bud Sprague leading them in response to word from air direction control in Soerabaya that enemy bombers were approaching the naval base from the rear. They were supposed to have been seen flying low over Malang and Gnoro, a little place half way between Djombang and Soerabaya.

But these were not Mitsubishi's, but fortresses on their way northward to bomb. After the squadron landed with two hours' searching time on their engines, Lieutenant Dale flew down to Soerabaya to try to straighten out the operational control and prevent such wasted warnings. These were the unavoidable growing pains of an infant warning system, out-of-date even when installed.

On the same afternoon there was welcome news from Soerabaya; three more Kittyhawks, having flown safely across from Darwin, had landed at Perak field. Sprague flew down to Perak to bring them back to the Blimbing field. They were the first survivors of a flight of 25 that had started out from Darwin and made the unhappy choice of pausing at Den Pasar airdrome on Bali instead of flying straight through from Koepang to Soerabaya. The Zeros had twice caught them, unwarned by radar, rising from Penfoei field at Koepang and again from Den Pasar field on Bali. Only five of the total of eight that eventually dribbled into Perak Field at Soerabaya, the vanguard being those flown by Captain Bill "Shady" Lane and Lieutenant Jesse R. "Toughy" Hague of Panarova, Iowa, could still fly. The third Kittyhawk, piloted by Lieutenant Dwight S. Muckley of Johnstown, Pennsylvania, had hardly been able to totter over Bali Strait, creep in around Madura and sink down onto an emergency field. To make things snug and cosy "Muck" came in with a transportful of additional ground crew, unarmed, in the midst of one of the biggest raids on the naval base and airfields. Perry, the keen and imperturbable 19-year old armorer, later recalled it thus:

"Strafers appeared over the harbor again. No sooner had they gone than we noticed two planes, flying low, one big, one small, coming in from the opposite direction. 'They're bombing low this time,' somebody said. But then came the recognition signal from the big plane. 'Those are our ships,' somebody yelled and everybody climbed out of the shelter to look. Sure enough, a transport and a P-40. 'Where are the others?' we wondered.

"The pursuit ship landed and we noticed it was a bad landing. The ship hit, almost nosed over for half the length of the runway, then flopped back on the tail wheel and came to a stop. The engine ran for several seconds, then slowly spluttered and died. The pilot climbed out of the cockpit very slowly and we noticed him examining his plane's tail.

"In the meantime the transport had landed and pulled up in front of the hangar. 'Get into shelter!' we yelled. 'There's a raid on and the all-clear hasn't sounded.' The new men were thoroughly frightened. The pilot wanted to take off. The men wanted to get out. They got out.

"About this time the pilot of the P-40, escorted by a couple of fellows, walked up and when somebody asked him how he was, he answered in a voice that was hysterical. 'I'm all shot to hell,' he said, and his voice cracked with emotion.

"We ran out to look at the plane. Sure enough, he had been 'shot to hell.' His right wing looked as though someone had punched holes every inch with a screwdriver. His left wing was pulverized with explosive cannon shot, and his aileron cables were severed, dangling down, swinging in the breeze.

"His rudder and elevators were locked, immovably, by the effect of the bullets. There was a hole a foot square in the side of the fuselage. His radio was all shot up, and he had landed on *two* flat tires, no mean feat for a P-40. His prop had several holes in it and a rear view mirror that we had put on at Darwin had been clipped neatly off two inches from his head.

"About that time the sirens wailed again, sounding another raid. The bunch of us examining the plane were caught in the middle of the field. We started running for the shelter, a half mile away over the bare landing strip. It seemed to me like a nightmare. I ran and ran, but I seemed no closer. A truck came by at (it seemed) 30 miles an hour, and I grabbed it and hung on. About the time we reached the shelter the all clear blew. False alarm. We laughed at the scare



and came out again. Lieutenant Muckley, the pilot of the P-40, had snapped out of his hysterics and was okay again. He had not been hit.

"We found out from him what had happened and it was a sad story. They (the 30 planes at Darwin) had been delayed by weather, and took off the next day. They flew to Timor and landed, all planes intact. Only 25 planes had come that far, the others being held back for necessary maintenance. At dawn, on the runway at Koepang, 25 P-40s, in fighting condition, warmed up and made ready to take off. One by one they jammed the throttle home and took to the air.

"Suddenly, without warning, a formation of Zeros dived out of the low lying clouds and attacked the helpless planes. The planes that had taken off did not stand a chance with only about 1,000 feet altitude. The highly maneuverable, fast and shifty Zeros strafed the planes on the runway, shot down those in the air, three Japs against one P-40. Then they were gone. Out of the 25 P-40 pursuits, only 17 were left. Some of these were damaged. Eight planes had gone up in flames and smoke.

"The 17 remaining planes had their damage repaired and again took off, their destination this time being Bali, another refueling stop. Dawn in Bali found the 17 taking off, this time when it was barely light enough to see the runway. Eight planes got off. Again, screaming out of the clouds, where they had been circling like vultures, came the Zeros, 27 of them firing everything they had.

"Again the P-40s were caught either on the ground or at not more than 2,000 feet altitude. Lieutenant Muckley, one of those who had got off, somehow missed the first screaming dive of the Japs and tried to get more altitude. He was about 8,000 feet when the Zeros again attacked him, having climbed up to his level again.

"He pointed his nose down, jammed the throttle to full open, and prayed. Down to 7,000, 6,000, 5,000, 4,000, 3,000, going at a terrific pace, 300, 350, 400, 450, 500, 600, 630 miles an hour. He leveled off above the treetops of the jungle and streaked for Soerabaya.

"During his dive the Japs had been close behind, and now were still following him. He gradually drew out of range, the P-40 edging the Zero by about 15 miles an hour. The three Japs chased him far, then losing range, dropped back. Muckley flew on to Soerabaya, met the transport and flew alongside. He let his wheels down, motioning to the men in the plane to give him the okay sign on his tires. He knew one had been shot. They thought he was just waving at them, and waved back. Muckley landed, two tires shot out, ailerons locked,

rudder and elevators hardly movable and nearly dead from exhaustion. That's when we met him.

"Out of the 17 planes that left Koepang, only five remained. Five planes out of twenty. Most of the pilots were alive, but there were some who had fought their last battle for Java. And their last battle had to be completely one-sided, with the Jap fifth column and superiority in numbers taking triumph over the United States forces. Our Far Eastern Air Force had suffered a hard blow."

To one pilot at least, Jim Morehead of Oklahoma City, that day on Bali was the first news of how fast the war was being lost. "Before I joined the air corps I was never higher off the ground than the seat of a tractor," he used to say. Morehead, though older at twenty-seven than most, had little of the conservative about him. He had brought the name of "wild man" from Hamilton Field, because he once flew from Hamilton to Sacramento upside down.

When the raid broke over Bali he was sitting, like a character in a Cole Porter song, on the open beach, his lanky legs drawn up. Arms resting on knees, he was sucking the pale sweet milk from the first cocoanut he had ever tasted. It was an idyll of musical comedy aviator's life, and even the goona-goona was not far in the background.

"Then I heard and saw a strange airplane. I sang out to Shady (Captain Lane): 'There goes somebody. Wonder what he wants.'

"Shady says: 'Well, I guess we better find out,' and called out that enemy planes were coming. Everyone jumped into his plane. I was the last to be gassed. I sat on the ground trying to pour gas into my ship. Then I heard Zeros. Our planes that had got up—the first one then only about four thousand feet—started to dogfight with the Zeros. A couple of Zeros came over and had a go at the field. Then one of our ships, all shot up in the dogfight, landed.

"Now we heard the deeper note of their bombers. I saw a little Dutch motorcycle near me. I hopped on it, ran out on the field, picked up the shotup pilot, and tore for the palms. I got there only about two minutes before the bombs began coming down on us.

"Fortunately we'd been sensible enough to disperse our ships. Of all the planes that did not get off, the Japs got only one. And they wiped out the ship that was shot up, which didn't matter. We think that two of us got Japs and two others got probables. Our gang didn't even land for rest after the fight: they beat it straight for Soerabaya."

On Bali there was lost Larry Landry, a Louisiana State boy with two hundred hours on his time sheet.

The command in Bandoeng was aware that the Soerabaya warning system needed overhaul, and sent a big B-18 bomber there with a staff of radar officers aboard. It never arrived, being lost with its radio expert, Colonel William H. Murphy of Washington, through the lack of the very thing this party was meant to supply. Zeros accompanying the bombers on February 3rd trapped the B-18 over *kampung* Sojo, south of Oedjong Ponkau near Sedajce. Its pilot Major Joseph A. Burch of Waco, Texas and co-pilot Lieutenant Russell Smith of Los Angeles lived long enough for the Dutch natives to bring them to a hospital, as did Major Austin A. Straubel, a squadron commander of fortresses, for whom a field in Australia was named later. Colonel Murphy was killed along with his radar staff: Lieutenant Glenn H. Boes of Albuquerque, Lieutenant Irvin Roy Kriel of St. Joseph, Michigan and Sergeant George W. Pickett of Riverside, California.

Had they arrived at Soerabaya, their warning system might have saved Java. As it was, the fighter pilots went back to their old listening for the warning gongs of the villages, which travelled faster than the tattoo of African drums, and often more swiftly than the warnings of official lookouts.

In this first raid, besides this B-18, the Japs by sending over 70 bombers in all, killed 33 people and injured 141. The red-circled bombers claimed to have obliterated on the ground 85 Dutch planes besides the five Brewsters shot down. There was actually much damage among the Catalinas, Dorniers, and Dornier-Wals at Moro-Krem bang across the Madura Strait from the Navy yard.

There was, despite this disaster, a sign that the Seventeenth was not forgotten in the arrival of more men for the ground crews, and also two extra pilots, Winfred H. Gallienne of San Francisco and chubby blond George A. Parker of Pasadena.

The next day Blimbing saw its first tragedy. The lovable and popular "Jess" Willard Reed, the Marine Corps captain who had been a kind of guardian angel to the Seventeenth Pursuit, was bringing in a P-40 over Blimbing. He had no right to be in an army P-40; his job was over on the PBY Catalina scouting side. But he wanted to help the hard-pressed fighters. He was a flying commander, and knew that he could not give Bud Sprague full cooperation with the Dutch unless he understood the take-off problems at Blimbing's compact *sacvi* surrounded field. A fast, clear and tight group takeoff is necessary to make possible early, high, and advantageous interception.

Jess took off smoothly, but coming in, perhaps due to the twinkling

illusion of the flooded rice fields he made a mistake, and his motor cut out. Possibly, as some think, he got hold of the mixture control, which is next to the throttle in a P-40, but not bent away from it as in a PBY. In the P-40 "office" the propeller pitch, the throttle and the mixture control are placed close together. What Reed probably did was to reach for the throttle and pull back on the mixture control.

Almost everyone in the squadron was standing on the field watching him. His plane disappeared behind a hilly rice field. Then they heard the sloppy noise of the crash. He must have got the engine going again, because they heard it catch once just before the crash. Then Walt Coss and Cy Blanton (Nathaniel H. Blanton of Earlsboro, Oklahoma) reached him. Only his arm was broken; it seemed to everyone as though he had been drowned in the *sawi* rather than killed. He had tried to stretch his glide, possibly after shutting off his mixture control and being unable to get it going again. Besides having turned over, the plane had come completely around and was facing the other way, away from the field.

The Dutch mourned Reed, for he was the oldest of their American instructors. The Dutch wanted to bury him, but the 17th decided to take care of the Marine who was now their own. Staff Sergeant Harold N. Varner before the war had operated a funeral parlor in San Rafael, and Reed was borne away by the hands of the men who admired him. They buried him the same day, not far from the *sawi* where he died, and there he rested awaiting the day when his own Marines, with the army and navy, were to go back to Java.

*(To be continued)*



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## HEADQUARTERS GAZETTE

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Major General Frank R. McCoy opened the winter season of lectures of the American Military Institute with a discussion of "The First American Overseas Expedition, 1762." The meeting was held on December 15, at the National Archives in Washington, D. C.

The second meeting in the series will be held on February 1, 1945, in the Conference Room of the National Archives. Dr. Troyer Anderson, Historian of the Office of the Under Secretary of War, will speak on "The Influence of Military Production and Supply upon History." Dr. Anderson, who considers his subject with particular respect to the present war, will give the address in response to requests for the benefit of those in the Washington area who were not able to hear the paper as originally read in December at the joint meeting of the American Military Institute and the American Historical Association at Chicago.

The Chicago meeting, at which Brigadier General Donald Armstrong of the Army Industrial College acted as chairman, was considered one of the outstanding sessions of the annual AHA meeting.

Colonel Adelno Gibson, following many calls by members of the AMI, has submitted the following bibliography of material in the library of the Army War College that bears on the lecture by General McCoy:

*An authentic journal of the siege of Havana. By an officer. To which is prefixed a plan of the siege of Havana, shewing the landing, encampments, approaches, and batteries of the English army.* London, Jefferys, 1762.

Cutter, William

*The Life of Israel Putnam.* Boston, 1856.

Franklin, Benjamin

"The Interest of Great Britain considered with regard to her colonies and the acquisitions of Canada and Guadalupe," in *Works*, ed. by Jared Sparks, Vol. p. 1-53. Boston, 1837.

Graham, John

*Extracts from the journal of the Reverend John Graham, chaplain of the First Connecticut regiment, Colonel Lyman. From September 25th to October 19th, 1762, at the siege of Havana.* New York, 1896.

Hart, Francis Russell

*The Siege of Havana.* Boston, 1931.

A Journal of the Siege of Havana by the English in 1762. (Typewritten copy.)

McCoy, Frank R.

"The taking of Havana by the British and Americans in 1762," in *Journal of the U. S. Cavalry Association*, Vol. XIV, No. 50, (Oct. 1903), 228-260, 394.

Mackellar, Patrick

*A correct journal of the landing of His Majesty's forces on the island of Cuba; and of the siege and surrender of the Havannah, August 13, 1762. . . .* London, 1762.

Robertson, Archibald

*Archibald Robertson, lieutenant-general Royal Engineers, his diaries and sketches in America, 1762-1780.* New York, 1930.

Schulze, Johann

*Recollections of olden times.* (Typewritten) 1909.

Stockson, Charles H.

*An account of some past military and naval operations directed against Cuba and Puerto Rico.*

## AMONG OUR CONTRIBUTORS

Major General R. H. Allen has served as staff officer with Field Marshals Wavell and Wilson during the present war.

Dr. Lawrence S. Kubie of New York is a physician who has been active in and written at length on the problem of the selection of troops.

George Weller, foreign correspondent of the Chicago *Daily News* and author of the recent *Oversea Bases*, is a Pulitzer Prize winner of last year.

Fred K. Vigman, authority on American military history, is a frequent contributor to *MILITARY AFFAIRS*.

Among our reviewers, Major Elmer Ellis, of the G-2 Historical Branch, is on leave from the Department of History of the University of Missouri; Lieutenant Colonel Kent Roberts Greenfield is Historian of the Army Ground Forces; Dr. Alfred Vagts, trustee of the American Military Institute, is one of the outstanding authorities on the art of war in the United States; Lieutenant Thurman Wilkins is Associate Editor of *MILITARY AFFAIRS*; Lieutenant Bernard Brodie, who has won critical acclaim for his studies on Naval strategy, is doing historical work for the Navy Department; Dr. Louis G. Hunter is Professor of Political Science at American University; Dr. Robert Strausz-Hupé is a specialist in the study of political geography; Captain T. P. Morgenstern is Naval Attaché of the Polish Embassy in Washington; Hyman Roudman is Associate Editor of *MILITARY AFFAIRS*; G. J. Stansfield is Book Review Editor of *MILITARY AFFAIRS*.

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## THE MILITARY LIBRARY

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*The Island*, by Captain Herbert L. Merillat. (Boston: Houghton Mifflin Company. 1944. Pp. 283. \$3.00.)

*The Island* is just what its author, Captain Merillat, claims for it—a history of the First Marine Division, Reinforced, on Guadalcanal. But this Division was the major factor in the land battle for the first four months, and there is enough on the air, naval, and Army ground action to keep its work in reasonable perspective.

Captain Merillat was a public relations officer of the Division on the island. He has written here the best long range public relations story possible—serious, factual history. Nearly all of the essentials that go to make a battle history valuable are here, including both command and front line perspectives. Only the order of battle, American and enemy, is for obvious reasons incomplete. There is not the slightest reflection of any inter-service disharmony in the account.

The Battle of Guadalcanal is one of the more interesting chapters in American military history. Its appeal is not only as a story of heroism, but also as a turning point in the War in the Pacific. For it was here that the American command chose to attack and drive back the Japanese. It must have been a hard decision to make with the meager forces available at the time, and while in the end success crowned the effort, all the information now available indicates a contest that on several occasions came close to disaster. To appreciate the risk involved, one need only speculate on how a little less bungling in the Japanese command or a little less American military skill on land, sea, or air would have changed the result.

Guadalcanal was basically a battle for a nearly completed Japanese airfield, in which surprise gained for us the initial advantage of possession. From then on it was a problem of holding the airfield and developing it so as to counterbalance the Japanese advantage of its nearer bases from which to launch attacks and reinforce its ground units on the Island. In this struggle epics of naval, air, and small scale land fighting were enacted.

We have had considerable literature on the battle. The correspondents, Tregaskis, Hersey, and Wolfert have all given us sound volumes of personal observation, and so have officers like Major Foss

and Commander Bell. But none of these presented more than a part of the history. *The Island* likewise gives us only a part, but it is a far larger part than any of the others.

Captain Merillat is able to debunk some of the stories that have gained circulation about the battle. He is judiciously critical toward accounts based upon memory and the history shows considerable evidence of cross checking before using material from such sources.

Ten maps of uneven quality are included along with some interesting photographs. In the appendix are reprinted the citations of the unit for its work and lists of men in the Division decorated for acts performed in the battle. Unfortunately the book is not annotated. There are few typographical slips, but the usual newspaper error of calling the Army's Americal Division the "America" Division appears twice, which raises doubts on grounds of recognizability as to the wisdom of using that name to designate a division.

Captain Merillat has given us an adequate history of the First Marine Division in the battle. In the total story this famous organization was only one of many ground, air, and naval units engaged and the history of these—Army, Navy, and Marine—is still to be written and integrated with that of the First Marine Division before we have a satisfactory history of the battle. Because of his own first hand observation of the battle, and his intelligent use of records and interviews, Captain Merillat's book will remain an important source of information for any other historians who write on the subject of Guadalcanal.

ELMER ELLIS,  
Major, Infantry

*Prelude to Invasion, An Account Based Upon Official Reports*, by Henry L. Stimson, Secretary of War. (Washington: Public Affairs Press. 1944. Pp. 332. \$3.25.)

The reader may be surprised by the contents of this volume. Actually, as he will discover by careful attention to the preface and from internal evidence, it is a compilation of Mr. Stimson's statements at his press conferences on the course of the war to June 8, 1944, interspersed with several more carefully prepared statements made, as again one is left to infer from internal evidence, before Congressional committees. It therefore contains only such official information as the Secretary of War saw fit to disclose at a given moment, with due regard to security and the effect on public opinion. These are the press statements of a busy statesman; they cannot, therefore, be expected to have the scope or maturity of "official reports." Finally, they have no



bearing on "The Invasion," except as they furnish incidental information on events that preceded it.

The official information contained in these statements became public property and has been combined with knowledge later made available to create more complete accounts of the progress of the war. They owe their value to the character and thought of the man who made them.

The reader will reflect with pride and satisfaction on these statements in contrast with those of Herr Goebbel's—on Mr. Stimson's steady candor, gravity, broad realism and justice of view, and comprehensive grasp of political as well as military essentials. The best of them, for example, that of May 13, 1943, reviewing the Tunisian campaign, or the two which review the years 1942 and 1943, rival Mr. Churchill's grand retrospects in sobriety, insight and balance. The emphasis is steadily kept on the world picture, and on cooperation as our strength—Army with Navy and Marines; air forces with ground forces; the home front with the battle front; the forces of the United States with those of its Allies around the world.

Mr. Stimson's statements represent a constant effort to keep the American public from becoming discouraged, and equally to prevent it from becoming excessively optimistic and flagging in its support of our forces in the field. On the side of information, what is emphasized may be taken as reflecting, in broad terms, the official intent of our strategy in its successive phases—offensive as soon as we could gather the power to strike, in the fall of 1942; relying for the first heavy blows on air power; basing great hopes through 1943 on strategic bombing, but realizing, then, and with increasing certainty, that "not until the continent of Europe is invaded and we have met face to face the remaining masses of the German troops; not until our Navy has grappled with the powerful home fleet of Japan can we say that we are passing through the period of the 'drag of this war'." (9 December 1943.)

So sober, honest and comprehensive is the view reflected in Mr. Stimson's statements that from them might be sketched, for the period covered, an outline of the war, and not merely of our participation in it—one which would probably stand up as well as any that could now be made. But if such a service was the purpose of the present volume, it could have been rendered by selection and editing in one quarter of the number of pages.

KENT ROBERTS GREENFIELD,  
*Lieutenant Colonel, Infantry*

*MacArthur and the War Against Japan*, by Frazier Hunt. (New York: Charles Scribner's Sons. 1944. Pp. viii, 182. \$2.50.)

*Pacific Battle Line*, by Foster Hailey. (New York: The Macmillan Company. 1944. Pp. ix, 405. \$3.50.)

*Pacific Victory, 1945*, by Joseph Driscoll. (Philadelphia & New York: J. B. Lippincott Company. 1944. Pp. 297. \$3.00.)

War correspondents are defined in the Hague Conventions on Land Warfare as "individuals who follow an army without belonging to it." Being restricted to land warfare, the Conventions do not cover the case of the naval war reporters, who represent after all the more recent growth. The war in the Pacific is currently being reported, in despatches or book form, by correspondents who do seem to belong either to the armies or the navies concerned, rather than to both or neither.

Books about this war began with reportage from distinct battle localities (Tregaskis, Wolfert, etc.). Their range was restricted and matters treated came well within the reporters' experience, original understanding and vision. Leaving grand and other strategy alone, honest human documentation, rather than tactical observation, was the usual outcome. The war described was largely that experienced by the privates, and not as seen or judged from the three or four stars elevation. This category of war literature is carried on by Captain Merrillat's book, *The Island: A History of the Marines on Guadalcanal*, an unofficial history by the official historian of the average Marine (he calls him "George"), who was engaged there.

Following that first phase, correspondents endeavored to rise to higher levels and reach vaster horizons, penetrate the considerations of the admirals and generals and see "the glory of them," or at least find out, as Driscoll does, their weight (43) or breakfast food. During this phase, the one still continuing, literature about the Pacific war came to correspond closely to the division of command in that area. It is consequently either naval or military, and not comprehensive as the work or the considerations of the Combined Staffs at home or of Admiral Nimitz himself, who, according to Driscoll, "keeping abreast of the times," is "growing more amphibious-minded" (50). The outlook is partisan, rather than truly amphibious as so much of their operations had to be. At times they seem to betray the fact that the combat partners have nothing in common except the disgust with the decision to give the war in Africa-Europe priority over that in Asia-Oceania, with "only 5% of American war production" going to the latter, or

to bisect or trisect this theater, which seems required largely because we possess a navy and an army, and not one unified force. A statement like Hailey's (215) about the earlier phase of the Pacific war, that a "contributing factor to the shackling of the navy was the division of authority in Oceania," can be matched by similar ones from the army side whose units on Guadalcanal were at first "treated as outsiders" (241). This separation in turn produced very divergent ideas about the advance across the waters, one forward school in the Navy thinking the attack in the direction of the Philippines nothing but a sentimental detour from the straight path to metropolitan Japan for the purpose of providing MacArthur with a comeback to Manila; one rather general school inside the Army forces insisting that victory can be obtained at less expense than through Navy and Marines methods, reports from MacArthur's headquarters maintaining that his methods, while not "making the news," made "his casualties the lowest in any war area."

In this competition or bisecting of publicistic labors, the naval side has fared better than the military whom Hunt champions. The former is represented to greater advantage by Hailey than by Driscoll who chats of the war like a Navy speaker at the Lions' Club luncheon, spreading much of the "lowdown" on the Army-Navy tensions in those distant seas, at the other end of which, he says, Admiral Perry "forced the Japanese to agree to the so-called Open Door Policy" (72). Hunt fairly smothers his hero with adulatory bear-hugs, a term he applies where other newsmen use "trap." His style is breathless, rather than deathless, and completely unsuited to bring out the General's true strength and weakness, from behind a flamboyance and rhetoric irritating to many.

Nothing could be more in error than to have MacArthur foresee very nearly everything that was to happen in the Philippines and make the plans to avert it, failing only because of the shortcomings in the means placed at his disposal. Actually, a good deal of his defense system, his ten years' plan for the Commonwealth, was clearly based on a wrong conception of the feasibility of landings, the General indicating in 1936, if not later, that landing operations after the Dardanelles disaster, where Turkish infantry, he wrote, quite wrongly, "in many cases decimated whole divisions in their attempt to land," were more or less impossible. Precisely the opposite from this claimed anticipation would seem true—MacArthur foresaw little of the shape of the war to come his way and learned much about it through trial and error, neither illustrated nor even mentioned by Hunt. That despite

his "old age" (Driscoll), the General succeeded in learning from experience and for the true purposes of the present war, especially about the use of aircraft in his islands and inter-islands operations, he who had shown, when Chief of Staff, but little appreciation for the new weapon, and that he developed a by-passing strategy, one of "hitting them where they ain't," seems too far outside the range of old-fashioned hero-worshipping to be grasped. To maintain that MacArthur, the former Chief of Staff, could honestly believe that with the forces at the disposal of the U. S. and her Allies at any early period of the Pacific War, the Philippines could have been relieved, defended or rewon, is doing him a publicistic disservice of the first order.

One problem, perhaps the most awkward in his hero's record, Hunt proceeds to tackle with some determination, only to be stumped, however. How did it happen that his bombers, or 17 out of 35, were in their regular places, like sheep in their fold, when the Japanese came to destroy them on the ground, even though the General had given orders thrice that these Flying Fortresses were to leave for Mindanao where they would be out of range? "His orders were not carried out." But is that an answer? Probably only to the historian of discipline who is aware that disobedience occurs near the top of the military hierarchy as easily, if not as readily detected or punished, as near the bottom. Then a year afterwards MacArthur gave out a formal announcement that General Brereton, who had not publicly been mentioned as in any way responsible before, was not to blame. There the matter rests, and the hope as well of seeing better justice done to MacArthur's generalship sooner or later, the wrongs or histrionics of which have been more publicized than the sound sides, for the style and niveau of his leadership are decidedly superior to those of his own communiqués or the ebullitions of journalistic headquarters guests.

Going for his materials to HQ's, whence his campaign analyses have been certified in a preface as "accurate," and to its records, Hunt did not see the actual fighting he deals with. Hence, there is but little on the level of the GI's who are reported to "love" their general, though actually such relationships are apt to be a good deal more ambivalent in their character. Hailey came closer to the scenes of battle, though he did not personally "cover" all the phases of the Pacific War. He takes in all of that war as the Navy fought it during the first 20 months, which is omitting the Philippines and New Guinea. Whatever the so-called general public may believe about the omnipresence and omnivision of the reporter, his presence in battle is not such a great boon as it is cried out to be. In fact, the doubt is quite



legitimate whether the newsman on shipboard does not see even less than his colleague on a land mission. Hailey in his story succeeds practically as well with the campaigns where he was not present as with those he eyewitnessed. His temperament is not of the kind to insist, like a Quentin Reynolds, that our blood pressure go up every time a heavy bomb comes down or he meets a celebrity. With due admiration for figures like Admiral Halsey, he still sees some faults in the latter which in the nature of things must have been observed by at least some of the Admiral's own subordinates (p. 241). While he rather illiberally overinterprets the gossip of Hawaii as proof of local Japanese disloyalty, he does not on the whole overgeneralize on the basis of the necessarily limited number of shipboard and port conversations. While Driscoll everywhere found violent hatred for the Japanese among the combatants, raising the old conundrum of how many facts beyond one a journalist needs to come to a general conclusion, Hailey "talked to few men who had any feeling of personal hate for the individual men whom they were forced to fight and kill." Driscoll's conclusion was "Let's cook 'em in gas"—as simple as that!

Often, though not often enough to suit our taste, Hailey arises above the trivialities which journalists are apt to think important, such as their laundry troubles or the "honorable mention" of other journalists who were also there representing whom or what, to consider the broader issues of the Pacific War such as the strategy of the opposing parties. In a measure, Pearl Harbor proves a blessing in disguise for us in that it kept us from the attempt, bound to be disastrous, or striving to relieve the Philippines in force. Japanese strategy reveals itself in many ways as a mixture of cunning, miscalculation and stupidity, the miscalculation to be found in the hope that we would proceed to conquer to the last square foot all the many islands between our own coasts and those of Japan and thereby tire ourselves of the war. Hailey's incidental doubt whether "perhaps German pressure had something to do with their decision to attack us," raises one of the more intriguing questions for the military-diplomatic historiography of this war to settle, to confirm or deny the offhand suspicion that something like Pearl Harbor was the last to be desired by the Germans, as it was almost the only imaginable stroke that would have brought America at the time openly into the war. But then one does not know the Führer's intuition in this case, although he must have been disappointed that the Axis partner did not turn first or as well against Russia.

As Hailey reminds us, it was Japanese error which the U. S. had to thank for obtaining the chance to learn the Pacific war, even if in the

hard and sometimes humiliating way as around Guadalcanal (Savo Battle, pp. 201-5), "and not Washington," or one might add, Mahan. Not to our own prevision was it due "that Pearl Harbor and the Aleutians were not lost and our West coast not attacked. It just didn't happen to be Jap strategy." Strange as the Pacific war is in many ways, the old truth that nothing helps so much in war as enemy mistakes, particularly if they number at least one more than one's own, had been confirmed by a good journalist's second thoughts, transcending the admiration of the undoubted, and by him, profoundly admired individual feats of the Pacific fighters.

ALFRED VAGTS,  
*Sherman, Connecticut*

*When Johnny Comes Marching Home*, by Dixon Wecter. (Boston: Houghton Mifflin Company. 1944. Pp. 588. \$3.00.)

Dixon Wecter's latest volume opens with a witicism current among the doughboys in 1918: "The war will last a hundred years," the saying ran, "five years of fighting and ninety-five of winding up the barbed wire." It was not a bad epitome of the war's aftermath, Dr. Wecter adds. The consequences of any major conflict spread to baffling extents, but in magnitude and complexity the problems ensnarled in the wake of World War II will, like the conflict itself, have no equal in past history. Certainly not the least part of the trouble will center in the factor of the returning soldier, who must rediscover his place in civil life. With nearly one tenth of the nation's population now in the armed forces, there can be no question that the theme of *When Johnny Comes Marching Home* is one of first importance to the future of America.

Almost three-quarters of the book is devoted to a backward glance at the American soldier making the leap from war to peace. The author's objectives are stated in the preliminary chapter, "After Three Wars," a rewarding prelude to the rich material that follows. Among the questions raised are those of how our armies after major wars of the past were actually disbanded, how the individual soldier was affected in character, mind, or body by his war experiences, how he succeeded or how he failed in readjusting to the new world of peace, how society reacted, and to what extent it gave or failed to give the returning soldier help. Assuming that the first five years of peace are hardest for the average veteran and that such a span is sufficiently long to afford an adequate picture of the individual's efforts to find his place, Dr. Wecter then proceeds to shape his answers in terms of particularized

composites of the American veteran in his milieu, over intervals of five years after the Revolutionary, Civil, and First World Wars. The Continentals are followed from 1783 to the ratification of the Constitution; the Blue and Gray from Appomattox to the beginnings in 1870 of home rule in the South; and the Doughboys from 1918 to the end of the American occupation of the Rhine.

In these studies the author achieves his aim to rescue the individual from the abstraction of official record and animate his account with "flesh and blood of particulars." The wealth of detail, gathered from not only official documents but also files of old newspapers, books and other publications, personal reminiscences, diaries, and letters, is offered in the opinion that a careful sifting of known facts and "enough repetition of pattern in the aftermath" of former wars should reveal some helpful conclusions for action in the post-war stress ahead. Attention is shifted thereupon to a consideration of G.I. Joe, with neither sweet nor sour notes deleted; and there follows a "cautious preview" of his final mustering out, suggested in terms of Air Force "decompression chambers," of the G.I. Bill of Rights, and such separation centers as are now in action. One might wish that additional pages had been granted to these closing chapters.

To the preparation of the volume Dr. Wecter brings an assuring background. Author of *The Saga of American Society* and *The Hero in America*, both excellent works, and now engaged upon the thirteenth volume in *The History of American Life* series, he has lately explored the entire range of American military history, editing with William Matthews the recent volume, *Our Soldiers Speak: 1775-1918*. There is no question in this reviewer's mind of the soundness and integrity of Dr. Wecter's scholarship. *When Johnny Comes Marching Home* is a significant contribution to the fields of social and military history. What proves an equal delight, it may be added, is the author's easy and graceful manner in spite of immense erudition. The book contains such lively, human, and readable prose that there can be no wonder why it was selected by the publishers for a Life-in-America Prize.

THURMAN WILKINS,  
Lieutenant, AGD

*The Super-Powers: The United States, Britain, and the Soviet Union*  
—*Their Responsibility for Peace*, by William T. R. Fox. (New York: Harcourt Brace. 1944. Pp. 194. \$2.00.)

Realism has not been conspicuous among the host of recently published books on how to win the peace, and the fact that it presents such

a refreshing exception to the rule is the first point which commends Dr. Fox's *The Super-Powers*. Dr. Fox is concerned with what is as well as with what ought to be, and his guiding principle in determining what ought to be is laid down in the famous dictum of Bismarck that "Politics is the art of the possible." In adhering rigorously to this principle he inevitably tears down the fetishes worshipped by so many professional peace planners, and by so doing performs a much-needed constructive operation.

The author begins with the forthright proposition that the implementation of the peace demands upon the power of those states which together possess a near monopoly of armed force. The small powers may or may not be more noble and far-sighted than the large ones (in this reviewer's opinion there is no reason to assume that they are), but the fact remains that they have never carried much weight in a state system based on power, and recent technological changes in the tools of war have caused an even further reduction in their relative military competence. Thus, a blueprint for peace which fails adequately to distinguish in influence as well as responsibility between great and small powers is a blueprint for Utopia.

Moreover, peace cannot be assured by attempting to legislate armed power out of existence. "It is a peculiarly American notion," the author says, "to assume that problems in a world of power politics can be solved by creating a world of no-power politics." And since it may "safely be predicted" that the great powers will insist on retaining immediate control of their individual armies, navies, and air forces, the dream of an international police force must be rejected as impossible of achievement. Besides, it would almost certainly be ineffective if achieved only on the scale proposed by its advocates. For the present at least, there is no substitute for armed force in the hands of sovereign nations; and that force should therefore be regarded as normal and subject to manipulation for good rather than as something anachronistic and wholly repugnant.

Thus disposing of the "all or nothing" school who are bound to be defeatist in their attitudes toward any peace which attempts to exploit the possible, Dr. Fox proceeds to examine and evaluate the factors which operate for or against the cooperation of the three "custodians of greatest power." In contrast to the situation which obtained prior to the twentieth century, the main centers of power are no longer located in continental Western Europe. The new situation is characterized not only by the fact that a war between the powers of first rank would necessarily be protracted, far-flung, and indecisive, but also by a



general realization that "small variations in military power will not jeopardize the military security of any of the super-powers." This idea is the basis of the general optimism which pervades the author's subsequent analysis.

In discussing relations between the United States and Great Britain, Dr. Fox proceeds along lines which other authors have made somewhat familiar but which none has analyzed so systematically and so well. His analysis of relations between the Anglo-American bloc on the one side and Russia on the other covers, however, relatively uncharted territory. His rather hopeful conclusions are based on what he conceives to be the comparative invulnerability of the Anglo-American bloc and of the Soviet Union from attack by the other; the extreme improbability of resort to war between Britain and the United States; the approximate territorial satiety of all three; the greater risk from Germany than from each other; and the obvious advantage of economy in joint action.

In regard to Germany, Dr. Fox points out that her geographic position will continue to "be such as to make a minimum of military power of maximum effect." The great danger to world peace in the future is therefore another "competitive appeasement of a reviving Germany." Thus, between the risks of acting as if Russia will be a trustworthy partner and of acting as if she will not, "the lesser risk is clearly that based on expectation of Soviet good faith."

Not the least contribution in this wholly excellent book is the author's portrayal (and denunciation) of what he calls the "verbalization" characteristic of American foreign policy in the past. Prospective aggressors have been considerably encouraged by our proclivity for "diplomatic declarations which are highly general in denouncing aggression and highly specific in promising not to implement the declaration in any way."

In a book which is pared to the bone and which, despite its many pungent phrases, is terse to the point of being stylistically difficult, it is possible to find faults of omissions or of failure to implement adequately an important assertion. While this reviewer would agree, for example, that the problem of Japan and of the Far East generally is by no means comparable to that of Germany and Europe, he must nevertheless regret the almost complete neglect of the Japanese question. A few of the author's statements seem to demand important qualifications. Nevertheless this volume is very rich ore in terms of vital ideas per page, and it gets down as few other books do to the elementary facts of life concerning international relations. The Yale

Institute of International Studies, in which Dr. Fox is research associate, can well be proud of this addition to a list of publications which was already outstanding.

BERNARD BRODIE,  
Washington, D. C.

*The Economics of Demobilization*, by E. Jay Howenstine, Jr. With an Introduction by Dr. Alvin H. Hansen. (Washington: Public Affairs Press. 1944. Pp. 336. \$3.75.)

This book is a welcome addition to the growing body of literature on the economics of war. It is not a theoretical treatise on the transition from a war to a peace economy. It is rather a comprehensive study which combines history and description with theoretical analysis within the framework of the pragmatism which is so encouraging a feature of current economic thought.

The main body and most valuable portion of the book is a detailed review of American experience in demobilization at the end of the first World War. Dr. Howenstine examines this experience as an economist rather than an historian. His chief concern is to analyze and evaluate this experience in the light of the problems of demobilization and post-war reconstruction that are already upon us. Many conditions and factors in the two periods, as the author carefully points out, are quite dissimilar—for example, the extent to which the economy was mobilized for war and the prevalent attitudes of the public toward planning and controls—but the basic problems of transition from a war economy to one of peace are much the same.

In contrast to the active and widespread discussion of economic demobilization during the past two years, in government circles and out, Armistice Day, 1918, found not only the American people but the government totally unprepared to deal with the many complex and difficult problems attending the restoration of the economic life of the country to its normal condition. Imbued with the natural forces-laissez-faire philosophy to a degree which seems curiously archaic today when even chambers of commerce engage in economic planning and ardent supporters of free enterprise plead for the retention of federal controls, the Wilson administration was from the outset seriously handicapped in dealing with the crisis into which the nation was precipitated by the sudden ending of the war.

The result was a series of weak, contradictory and incomplete measures which often did more to hamper than to facilitate the necessary readjustments. We not only failed to reach a satisfactory solution of

the immediate problems of demobilization but, in Dr. Howenstine's opinion, we lost an unusual opportunity of salvaging for peacetime use many of the valuable institutional advances resulting from the forced improvisations of the war period. The author concludes his study with a chapter in which he outlines the basic features of a sound demobilization program. That there is little that is novel or startling in his "blueprint for demobilization" is evidence of how far we have travelled in our thinking since 1918.

LOUIS C. HUNTER,  
*The American University,*  
*Washington, D. C.*

*Compass of the World*, by Hans W. Weigert and Vilhjalmur Stefansson, Editors. (New York: The Macmillan Company. 1944. Pp. 460. \$3.50.)

If the readings of *The Compass of the World* do not supply an answer to all the problems of high geopolitics, it is not the fault of the contributors to this symposium of politico-geographic thought. The idea which appears to have guided this work to completion is that the world has shrunk, that the United States has come to fill one of the largest places in it, and must raise its world political sights. Perhaps the most brilliant contribution to this theme of changing time-space relationships is Eugene Staley's "Myth of the Continents." This essay appeared in the spring of 1941, when such topics as "quarter-sphere defense" were still thought worth debating. Then, this closely reasoned essay provided a welcome contrast to the tepid indecision and continental provincialism which distinguished the political debate of that unhappy period. It is pleasing to find the essay included in this volume. Its arguments are as pertinent today as they were then. Quincy Wright's "Balance of Power," and Edmund Walsh's "Geopolitics and International Morals," deal with the broader issues of world order, each author driving towards fundamental truths which enoble geographic facts and without which balance of power, world order, and international security are "empty sounds." Frank W. Notestein's "Fundamentals of Population Change in Europe and the Soviet Union" brings to bear the acumen of a demographer, one of our ablest masters of the craft, upon the problems of shifting power relationships. Dr. Notestein's projections illustrate simply and impressively the "transitoriness" of world power. A chapter entitled "The Northward Course" looks hopefully towards the Arctic, a little too hopefully, it seems to this reviewer, as regards that region's future in world economy

and communications. The individual contributions, particularly Ernest Ropes' "Soviet Arctic and the Future" and George B. Cressy's "Siberia's Role in Soviet Strategy," contain much new material and open vistas which for too long a time have remained closed to the Mercator mind. Richard Harrison, who more valiantly than anyone in this country has battled for better maps and has drawn them, supplied a series of maps which contribute to the neat appearance of this volume.

ROBERT STRAUSS-HUPÉ,  
Washington, D. C.

*Navies in Exile*, by A. D. Divine. (New York: E. P. Dutton and Company. 1944. Pp. 264. \$2.75.)

Up to the time of the outbreak of this war, little or nothing was known in this country about the Polish Navy. Other navies described in A. D. Divine's *Navies in Exile* (with the exception of the young Yugoslavian and Belgian Navies) possess traditions which go back to many centuries. They have seen more than one war, and their battles and victories fill many a page of naval history.

The young Polish Navy, instead (apart from her short-lived existence in the 17th century) started her tradition with the outbreak of the present war.

"In a single hour of the first day of this greatest of all wars the small Polish Navy, new, untried, established a tradition. In the years that have passed there has been no shadow across that tradition . . . ." writes Divine in *Navies in Exile*.

Having at his disposal authentic material (documents and data obtained from the Polish Naval Headquarters in London), Divine has rendered a vivid account in his book of the principal highlights of the activity of the Polish Navy, whose record in the present war has placed this young fleet on par with older and more experienced Allied Navies.

The author has given a fine sketch of the fight on the Polish shores and the Baltic Sea. He describes how some Polish vessels made their epic escape from the Baltic Sea to Great Britain and took part in the initial naval operations of this war. He gives a graphic account of the difficult trials through which the Polish Navy fought their way to develop in strength, in spite of the heavy losses suffered, with the result that now Poland possesses more ships than before the outbreak of the war and actively fights alongside the Allies.

The authenticity of the material which the author had at his disposal gives his book an exceptional historical value. The vigorous manner in which he depicts the telling of these naval feats and the stirring literary



style places his book in the ranks of one of the best books written up to now about the present war at sea.

It is to be regretted that a small error occurred (it was taken from the original English edition) namely: The destroyer *Piorun* was fortunately not lost as described on page 64, but still fights successfully with the Allied Navies. The small error, nevertheless, does not detract from the book.

T. P. MORGENSTERN, *Captain, Polish Navy,*  
*Naval Attaché, Washington, D. C.*

*A Guide to Naval Strategy*, by Bernard Brodie. (Princeton: Princeton University Press. 1944. Pp. 314. \$2.75.)

The revised edition of *A Layman's Guide to Naval Strategy* differs little in theory, but is furnished with illustrative comment on the engagements occurring since the completion of the first edition.

The argument remains conservative: a Fleet nucleus of battleships, caution in advocating the primacy of new types, double caution in underestimating the inhibitive effect of dreadnaught fleets, even when "in-being" on enemy maneuver.

Though Brodie's facts are carefully marshalled, the tale of war does not bear out his weighted conclusions to the exclusion of other doctrine. Quite apart from relative expense, sea-keeping qualities, volume of firepower in a given time, and armor, war at sea, always more fluid than on land, is a balance of opportunities granted and denied. It is easier for the enemy to deny opportunity to our battleships than to our cruiser forces, and very difficult for him to avoid offering opportunity to a carrier force. Hence the spectacular increase of our carriers many fold greater than in any other class of warship.

It would seem to a layman that Brodie's tendency in this volume is to lean with the rest of us to the weapons of opportunity.

HYMAN ROUDMAN,  
*AGO, War Department*

## SHORT REVIEWS

*Down to Earth, Mapping for Everybody*, by David Greenhood. (New York: Holiday House. 1944. Pp. 262. \$4.00.)

*Atlas of Global Geography*, by Erwin Raisz. (New York: Global Press and Harper and Brothers. 1944. Pp. 63. \$3.50.)

These two volumes are outstanding in their field and have immediate use and permanent importance. *Down to Earth* is the best popular presentation of cartography which has appeared in the United States and is highly recommended for the beginners. The presentation is divided into three major sections: First, Getting the Most Out of Maps; second, Making Your Own; and third, Forming a Collection. The unusual drawings

enliven the very readable text, giving the final impression of an extremely well planned and stimulating introduction to the subject.

The *Atlas* which can be used in connection with a separate and striking 40 x 27 inch wall map of the world (\$1.00) presents the "plane's-eye view" perspective of the world. This new approach is of inestimable value in visualizing strategy of this air age global war, and post-war world problems. The latter is found in a separate section of the book which contains 32 maps in four colors, 16 in two colors and 16 in black and white. The basis for the types of soil, climate and land masses so represented are clearly brought out. In both cases the reader must examine these important tools in order to realize their great worth.

*Our Army at War, The Story of American Campaigns in World War II told in Official War Department Photographs.* (New York: Harper and Brothers. 1944. \$3.00.)

This pictorial history of the first two years of the present war outlines by a brief description and 482 well selected photographs the campaigns in the Pacific and the Far East, in the bleak Aleutians, and in the Mediterranean theater from the invasion of North Africa to Sicily and Italy. A separate group of pictures indicates briefly the air war over Fortress Europe.

From this pictorial work a clear idea of the scope and magnitude of global war as seen in the varied activities from training to fighting of G.I. Joe are to be obtained.

This volume has many unusual pictures which can be favorably compared with the famous Brady pictorial documents of the Civil War. It has permanent value as a record of achievement and as a means of bridging the gap between the veteran and those who remained at home.

*As a Cavalryman Remembers;* by Colonel George B. Rodney. (Caldwell, Idaho: The Caxton Printers, Limited. 1944. Pp. 247. \$4.00.)

These reminiscences of the period from the Spanish American war through World War I describe life in the "Old Army." With a brief mention of his service as a volunteer officer in the Spanish-American War, Colonel Rodney narrates the story of his career from this time of joining the famous Fifth Cavalry at Manila in 1901 as a First Lieutenant in the Regular Army.

Humorous and tragic incidents enliven his descriptions of life in the Philippines and at cavalry posts in the West. Important events on the Mexican border are also portrayed. Well chosen illustrations are aids to memory in recalling scenes long since past.

For those interested in the history of the United States Army this delightful autobiography puts flesh and blood upon the bare bones of the War Department records as it brings vividly to life an important but little known period.

G. J. STANSFIELD,  
Washington, D. C.

## NOTES

*The Australian Army at War 1939-1944*, published by the Director of Public Relations under the authority of and by the direction of General Thomas Blamey, Commander-in-Chief, Australian Military Forces, is a 103 page pamphlet containing a brief official record of service in two hemispheres from December 15, 1939, to April 26, 1944.

Recent English publications are *There's Freedom in the Air*, the official story of the Allied Air Forces from the occupied countries (London: His Majesty's Stationery Office. 1944. Pp. 35. 6d.), and a magnificent account of the *Army at War: Tunisia*, including a narrative history and many striking photographs (9½" x 14") as well as battle diagrams (London: His Majesty's Stationery Office. 1944. Pp. 59. One shilling.).

Two books describe the sacrifices of the neglected Merchant Marine at War. One is a fast

moving story of the adventures of American Colin Mackenzie, *Sailors of Fortune*. (New York: E. P. Dutton Company. 1944. Pp. 190. \$2.50.) The other is the *Battle of the Oceans* by Warren Armstrong, presenting the British Merchant Marine in an exciting informal history. (New York: Liveright Publishing Corporation. 1944. Pp. 336. \$2.50.) This intimate picture of life ashore and at sea has value for the naval historian as a permanent work, yet is of interest to the general reader.

Of particular interest to small arms enthusiasts are C. E. Hagies' *The American Rifle for Hunting and Target Shooting* (New York: The Macmillan Company. 1944. Pp. 174. \$1.95.) and the Fighting Forces edition of *Rifles and Machine Guns of the World's Armies*, by Captain Melvin M. Johnson, Jr. (Washington, D. C.: The Infantry Journal. 1944. Pp. 406. \$.25.). Both books contain important information, Part One of Johnson's work being of unusual interest in that it contains a brief classification and history of weapons.

*War Below Zero, the Battle for Greenland*, by Colonel Bernt Balchen, well known Arctic flyer, and the equally well known Major Corey Ford, and Major Oliver La Farge, Historical Officer of the Air Transport Command (Boston: Houghton Mifflin Company. 1944. Pp. 127. \$2.00) describes the ousting of the Germans from this strategically important center of weather information. Photographs vividly enliven the text.

*Articles of War Annotated*, by Colonel Lee S. Tillotson (Harrisburg: Military Service Publishing Company. 1944. Pp. 354. \$2.50.), is the third revised edition of the well known handbook.

*The Pacific World*, edited by Fairfield Osborn (Washington, D. C.: The Infantry Journal. 1944. Pp. 156. \$.50.) is a handbook of information about the geography and inhabitants of this fighting area.

*The Economics of Military Occupation*, by Henry S. Black and Bert F. Hoselitz (Chicago: University of Chicago Press. 1944. Pp. 157. \$2.00.) is designed to serve as a general guide for those who occupy enemy territory. The experiences of Germans, Japanese, British and Americans in the fields of Military Currency, Exchange Rates, Banking, Taxation, Price and Production Control with a special reference to problems relating to Japan are summarized.

The American Battle Monuments Commission has published operational histories of the following Divisions: *First, Second, Fifth, Thirty-third, Forty-second, Eightieth, Eighty-second, and Ninety-second*. These may be secured from the Superintendent of Documents, Government Printing Office.

Fletcher Pratt has written an excellent account of *The Navy's War* from the campaign in the Java Sea in early 1942 to the Solomons campaign in the Fall of 1943. (New York: Harper and Brothers. 1944. Pp. 295. \$2.75.) It is well illustrated with maps, charts, and photographs.

*Revolution Comes of Age, The Use of War*, by Asher Brynes, is a thought-provoking study on the history and philosophy of total war and its relationship to the home front. (New York: Farrar and Rinehart, Incorporated. 1944. Pp. 271. \$2.50.). The thoughts of Guibert, Napoleon and Ivan Bloch are important in his discussions.

Lieutenant Jim Lucas has translated his experiences as a Marine Combat Correspondent from boot camp to Tarawa in *Combat Correspondence*. (New York: Reynal and Hitchcock. 1944. Pp. 210. \$2.50.)

The Infantry Journal has made available to members of the armed forces John T. Whitaker's *We Cannot Escape History*. (Washington, D. C.: The Infantry Journal. 1944. Pp. 340. \$.25.)

*The British Navy's Air Arm*, by Owen Rutter, is an illustrated official story of Naval Air Operations. (Washington, D. C.: The Infantry Journal. 1944. Pp. 248. \$.25.)

Another Fighting Forces - Penguin special is *The GI Sketch Book* containing 120 pages of excellent illustrations. (Washington, D. C.: The Infantry Journal. 1944. Pp. 136. \$.25.)

## OTHER RECENT BOOKS

### INSTITUTIONS AND CULTURE

#### *Contemporary Scene*

*The Making of Modern Holland*, by A. J. Barnouw. (New York: W. W. Norton and Company. 1944. Pp. 224. \$2.75.)

*So Sorry, No Peace*, by Royal Arch Gunison. (New York: Viking Press. 1944. Pp. 281. \$3.00.)

*Central Union of Europe*, by Peter Jordan. (New York: Robert M. McBride. 1944. Pp. 110. \$2.00.)

*Europe: an Atlas of Human Geography*, by Martha Rajchman. (New York: William Morrow and Company. 1944. Pp. 120. \$2.00.)

*Russia: a Concise History*, by Louis Segal. (Forest Hills, New York: Transatlantic Arts. 1944. Pp. 262. \$3.50.)

*Argentine Riddle*, by Felix J. Weil. (New York: John Day Company. 1944. Pp. 310. \$3.50.)

#### POST-WAR DEVELOPMENTS

*Our Settlement with Germany*, by Henry N. Brailsford. (New York: John Day Company. 1944. Pp. 160. \$1.75.)

*What Makes a War End*, by Lieutenant Commander Harold A. Calahan. (New York: Vanguard Press. Pp. 260. \$2.50.)

*The Road to Serfdom*, by Friedrich A. Hayek. (Chicago: University of Chicago Press. 1944. Pp. 261. \$2.75.)

*Peace Through Love*, by Hans Kelsen. (Chapel Hill: University of North Carolina Press. 1944. Pp. 167. \$2.00.)

*The Control of Germany and Japan*, by Harold G. Moulton and Louis Marlio. (Washington, D. C.: Brookings Institute. 1944. Pp. 127. \$2.00.)

#### NATIONAL WARFARE

*Railroads at War*, by Selwyn K. Farrington, Jr. (New York: Coward-McCann. 1944. Pp. 338. \$4.00.)

*Nationality in History and Politics*, by Frederick O. Hertz. (New York: Oxford University Press. 1944. Pp. 427. \$6.50.)

*Journey Through Chaos*, by Agnes Meyer. (New York: Harcourt Brace and Company. 1944. Pp. 405. \$3.00.)

*Leningrad*, by Alexander Werth. (New York: Alfred A. Knopf. 1944. Pp. 189. \$2.50.)

#### MILITARY AND NAVAL OPERATIONS, WORLD WAR II

*One Man's War*, by Sergeant Charles E. Kelly and Pete Martin. (New York: Alfred A. Knopf. 1944. Pp. 188. \$2.00.)

*Pictorial History of the Second World War*. (New York: William H. Wise Company. \$5.96.)

*Poland Fights Back*, by Xavier Pruszyński. (New York: Roy Publishers. 1944. Pp. 191. \$2.50.)

*Beyond the Call of Duty*, by Franklin M. Reek. (New York: Thomas Y. Crowell. 1944. Pp. 186. \$2.00.)

*Invasion*, by Charles C. Wertenbaker. (New York: D. Appleton-Century Company. 1944. Pp. 177. \$2.50.)

*The Forgotten Battlefield*, by Kazimierz Wierzyński. (New York: Roy Publishers. 1944. Pp. 179. \$2.50.)

#### LAND WARFARE

*Infantry Attacks*, by General Erwin Rommel. (Washington: Infantry Journal. 1944. Pp. 265. \$3.00.)

*The Art of War*, by Sun Tzu Wu. (Harrisburg: Military Service Publishing Company. 1944. Pp. 99. \$1.00.)

#### SEA WARFARE

*We Build, We Fight: The Story of the Seabees*, by Hugh B. Cave. (New York: Harper and Brothers. 1944. Pp. 122. \$2.50.)

*Can Do, the Story of the Seabees*, by Lieutenant William B. Huie. (New York: E. P. Dutton and Company. 1944. Pp. 322. \$2.75.)



*Warships of the World*, by Roger Kafka and Roy L. Pepperburg, Editors. (New York: Cornell Maritime Press. 1944. Pp. 1051. \$15.00.)

*Fighting Fleets, 1944*, by Critchell Rimington. (New York: Dodd, Mead and Company. 1944. Pp. 360. \$4.50.)

*What Ship Is That?* by Eric C. Talbot-Booth. (New York: Didier Publishers. 1944. \$4.00.)

#### AIR WARFARE

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## NOTES AND ANTIQUITIES

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### WILLIAM DUANE'S *AMERICAN MILITARY LIBRARY*

BY FRED K. VIGMAN

#### I

The meagre attention given to the development of military art in the United States has led to a number of deplorable historical errors in the failure to properly evaluate William Duane's pioneer efforts in evolving a theoretical and practical system of military science in the early years of the Republic. The errors are serious enough if considered as mistakes in historical chronology, but more, it reflects a lack of interest in an important phase of national growth.

In consequence of this neglect, historians have confused or failed to note the proper order of Duane's military works. The errors are twofold: the first include historical sketches and accounts which list the *American Military Library* as published in 1819 and hence as the last of Duane's military writings, rather than the first; the second, failure to mention the *American Military Library*, either from ignorance of its publication or failure to grasp its key position in Duane's system.

Duane's first military treatise, a two-volume work, the *American Military Library*,<sup>1</sup> was published in Philadelphia in 1809, and by 1812 Duane was considering a second edition. Yet most biographical and historical sketches give the date of publication as 1819.<sup>2</sup>

Claude G. Bowers, in his biographical sketch of Duane in the *Dictionary of American Biography*, Vol. V, (Charles Scribner's Sons,

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<sup>1</sup>The title page, line by line, is as follows: The/ American Military Library;/ or,/ Compendium/ of the/ Modern Tactics./ embracing/ The Discipline, Manœuvres,/ and duties/ or/ Every Species of Troops./ Infantry, Rifle Corps, Cavalry, Artillery of Posi- tion, and Horse Artillery;/ A Treatise on Defense Works in the Field./ The exercise in Sea Coast Batteries,/ and/ Regular Fortifications./ Adapted to the Use of the Militia of the United/ States; to Whom it is Respectfully Dedicated./ by William Duane,/ Lieutenant Colonel in the Army of the United States./ Vol. 1./ Philadelphia:/ Printed by and for the Author, at No. 98, Market-Street./ 1809.

<sup>2</sup>Among the standard reference works which give 1819 as the date of publication of the *American Military Library* are: *Lamb's Biographical Dictionary of the United States*, Vol. II, Boston, 1900; *Nelson New-Loose Leaf Encyclopedia*, 1932 edition; *Appleton's Cyclopaedia of American Biography*, 1892 and the *International Encyclopedia*.

1930), says of Duane, after noting that he was appointed lieutenant-colonel of rifles in 1808 and served as adjutant-general in the War of 1812:

He wrote several books of indifferent merit on military science, including *Military Dictionary* (1810), *An Epitome of Arts and Science* (1811), *Handbook for Riflemen* (1813), *Handbook for Infantry* (1813) . . .

Bowers fails to list the *American Military Library*, either because he did not think the work important enough to mention or he failed to confirm the incorrect publication date of 1819 and hence decided that it did not exist.

This failure to properly list the *Military Library*, putting it last instead of first, throws out of focus the essential unity of Duane's military writings, and their contribution to the maturity of American military thought. Bowers' omission of the source book of all Duane's military treatises, makes the works he (Bowers) lists, the more "indifferent" and seemingly disjointed.

The poor historiography in connection with Duane can only be explained by the general neglect of American historians of the subject-matter and the resultant slipshod historical investigation.

The library of the Historical Society of Pennsylvania, Philadelphia, contains the two-volume work in question, besides Duane's other military writings. The Mercantile Library of Philadelphia also possesses volume one of the *American Military Library*, and in both instances the books are in good condition and legible throughout.

The date of publication of the *American Military Library* as given on the title page is 1809. The foreword is dated April 1809. Another proof of the date is contained in the "Elucidatory Preface" to *A Military Dictionary*, which was published in 1810.

This state of general indifference or unacquaintance with the business of war, gave rise to the *American Military Library*; in which the editor intended originally to have comprehended a vocabulary of military terms . . .

## II

The general facts of Duane's career are fairly well known. He was one of the leading journalists of Jefferson's party, a vitriolic anti-Federalist and a partner of Benjamin Franklin Bache, Franklin's grandson, in publishing the *Aurora*, a journal influential in Jefferson's election.

Duane showed no marked interest in military science as such in the *Aurora*, but he had probably read much on the subject. By 1807 he had already translated from the French and printed *The System of*

*Discipline and Manœuvres of Infantry*,<sup>3</sup> which, however, he did not publish separately but included it as a supplement section of Volume I of the *American Military Library*. His writings were probably known to Jefferson, for around this time the Secretary of War wrote him about a manual that Duane was contemplating, based on the *System of Discipline*. The work in question was later entitled *The Hand Book for Infantry*, which Duane did not complete and publish until 1812.

On the 8th March, 1808, the Secretary of War wrote to the author as follows—"From the present state of the public mind as well as from our very *deficient* military system, it would be a very favorable time for your military work to appear, and more especially those parts which embrace what is practised in the French army; will you please state what progress you have made and how long it will be before it can appear in print? I am ready to subscribe for as many copies as will be prudent." &c.

Thus encouraged, the work proceeded—but causes not necessary to notice, prevented its introduction until after the declaration of war . . . [of 1812].

Among the "causes not necessary to notice" was Duane's growing interest in military science, and his sense of the importance of the problem for the young nation. While translating French military manuals, he felt the need for a more intensive study of the theoretical basis of warfare. The *American Military Library* was the result of this study, in which he attempted to systematize the facts and history of warfare and thus stimulate a greater interest in professional military art. In his Forfend (an archaic term for Foreword) Duane wrote:

The tactics of our revolution would not answer in the present times. There is no discipline; there is even no system; and there are gross misconceptions on the subject. There appears to have been a disposition to discourage the acquisition of military knowledge, particularly in the militia . . .

This work was undertaken with the sole view of exciting military study, a military spirit, no professional man had undertaken to provide such information as was essential to the acquiring of correct ideas. There is no concise treatise in existence, *in any language*, exactly calculated to convey military information on all the branches of the art of war . . . the art of war is no longer what it was—it is a new science; this work was intended to shew in what the new tactics consist; if any one should be stimulated to undertake and publish a better—which the author would sincerely wish, it ought to be countenanced—if no one will undertake the labor, this treatise may at least be found better than none.

In the Introduction following the Forfend Duane reiterates the need for military study. After saying that the veterans of the Revolution were dead or dying off he wrote:

The pacific temper of the American people, the interests and policy of the government co-operating with this temper, had concurred with other causes, less innocent, to discourage military acquirements.

From such causes, combined with the presence of peace, and the apparent duration of security from foreign aggression, military studies have been brought into neglect . . . A knowledge of tactics is rare, discipline is pursued only in one or two states; many states wholly unprovided with arms; the best but partially—and even where the necessity of discipline has been felt and cherished, it has been practised only upon a system that modern improvements have exploded.

His work, Duane explained, was based on reading more than two

<sup>3</sup>The title page, line by line, is as follows: The/ System of Discipline/ and/ Manœuvres/ of Infantry/ Forming the Basis of Modern Tactics./ Established for the National Guards and Armies of France./ Translated for the American Military Library,/ from the edition published by authority in 1805./ Philadelphia:/ Printed by B. Graves, No. 40, North Fourth Street./ for William Duane./ 1807.



hundred volumes, “. . . all that could be collected from the ablest modern writers, on tactics, and the review of modern wars, in such a form, as would enable every man to possess himself of the knowledge of that art, which it is every man’s duty to possess, who feels a love of liberty or his country.”<sup>4</sup>

He had especially paid attention, Duane wrote, to:

. . . the French system which has as well by that simplicity as by its success, demonstrated its superiority . . . the French system at large, and the works of Jomini, on the campaigns of 1805, 6, and 7, are specially translated for this work.

Wherever the principles laid down in Steuben’s treatise are admissible they are constantly kept in view in the work.

Duane describes the plan and contents of the *American Military Library* in his Forfend, as follows:

Part I. An historical review of the art of war, which occupies four chapters, divided into sections, and extends to 107 pages, in which a concise view is taken of the history and progress of the military art, as well as an illustration of the various changes which have taken place in the use of weapons and the arrangement of troops.

Part II. Is a continuation of the subject in a didactic and practical form, according to the best principles now in practice; this part contains seven chapters, divided in like manner, and containing the elements of a system of discipline and tactics, particularly adapted to the United States, extending to the 233d page.

Part III. Contains the history, and theory, and the whole course of instructions for the staff or etat major, containing beside an entire translation of *Thiebauld’s* treatise, the only work before published on the subject, a considerable portion of original matter; this extends to the 334th page.

As a *supplementary part* to this volume is given the French system of infantry discipline, which is numbered apart, and contains 214 pages; this closes the first volume.

Part IV. Begins the second volume, and comprehends the discipline of light troops, as riflemen, pikemen, and light infantry, with a complete treatise on reconnoitring; this part contains 6 chapters and 98 pages.

Part V. Is a treatise on field works, adapted to the use of those who are not mathematicians, with 80 drawings of different problems and methods of laying off works in the field; instructions for choice of ground, the coup d’oeil, encampments, guards, picquets, &c. &c. in five chapters, extending to the 204th page.

Part VI. Is the discipline and tactics of cavalry; this is divided into eight chapters, comprehending all the cavalry drills and duties, and the sabre exercise; the pages are numbered from 1 to 140.

Part VII. Is a treatise on modern artillery discipline, comprehended in eight chapters, which is numbered in continuation of the cavalry, from 141 to 356.

Duane ran into unexpected technical difficulties and expense in preparing the engravings of field fortifications and tactical problems, and was forced to forego their inclusion in the *American Military Library*, but as he wrote in apology, “which shall be given to subscribers without any additional expence.”

Duane’s subsequent treatises were logical sequels and elaborations of the *American Military Library*. Thus his second work, *A Military Dictionary* (1810), a handbook of military terms and usages, he had originally planned for the *Library*. The *Dictionary* was comprehensive

<sup>4</sup>Among the writers that he studied, Duane lists the following: “Machiavel, Turenne, Montecuculi, Santa Cruz, Saxe, Pseygur, Folard, and above all, from the sagacious and profound Guibert: from Frederick of Prussia, Turpin, Guischard, Templehoff, Bulow, Lloyd, Wimpfen, Gross, Teilke, Rosch, Grimmoard, Saldern, Jourdan, Dumouriez, Llandeman, Dumas, and Jomini . . .”



and contained descriptions of weapons in use in existing armies, fortifications and of military organizations.

*The Hand Book for Infantry* was accepted by the War Department as its first official manual. Published in 1812, it went through nine editions in two years. Duane describes the circumstances of its official adoption as follows:

*The Hand Book for Infantry* was tendered to [the] government in 1812; the house of representatives approved of it by a large vote; and it was under consideration in the senate of the U. States, when the war department, by a general order, issued on the 19th March 1813, directed it "to be received and observed as the infantry system for the army of the U. S."

Duane issued a supplement in 1814 entitled *Explanation of the Plates of the System of Infantry Discipline, for the United States Army according to the regulations of 19 March, 1813*, a series of illustrations of infantry drill.

### III

Duane's military treatises and manuals were pioneer attempts to furnish a body of knowledge of tactics, theoretical and practical, for the reorganization of the military establishment of the United States in its first years. Washington, under pressure of events in the War for Independence, had written much on the shortcomings of the militia-army. There were other fugitive writings on the subject, but Duane took the subject out of the political sphere and put it on the basis of concrete objectives as defined by military science. If his labors were intense and protracted, his intentions were modest in what was essentially a thankless task.

It is not from an expectation that we can offer a system of organization free from defects, that we venture to suggest a plan. The nature of this work, requires that there should be some *intelligible principles* to proceed upon; in the investigation of tactics here undertaken, none are to be found in the *military codes* of the United States. As it is ever preferable to accommodate regulation, where it can be as well accomplished to the existing state of things, rather than attempt a total change; we have pursued that course. The military organization of foreign nations would not assimilate in the first stages with ours.

Duane accepted the fact that the militia constituted the leading element of any military establishment the people would allow, a position that Washington had taken earlier.

Duane's pioneer efforts are all the more significant because of the difficulties he encountered in the way of indifference to his labors. It was only his sense of duty to his country and to the president he helped elect that kept him at this work, spending much of his time and money,

to receive little in pecuniary returns and much abuse from his political enemies.

Duane's style, if not brilliant, was factual and properly subservient to its subject-matter with no journalistic flourishes and with only a few interpolations stressing the need for systematized discipline and a recognized standard of training and battle tactics, and urging the importance of military study.

The historical shortcomings of Duane's treatises may be said to be his too great dependence on the experience of the Old World, and his failure to assess the campaigns of the War for Independence. These campaigns would have furnished illustrative material for his discussion of tactics, and would thus have brought the American-fought war into the corpus of military history. This omission is all the more regrettable because of Duane's historical propinquity to the subject and its freshness in the national mind.